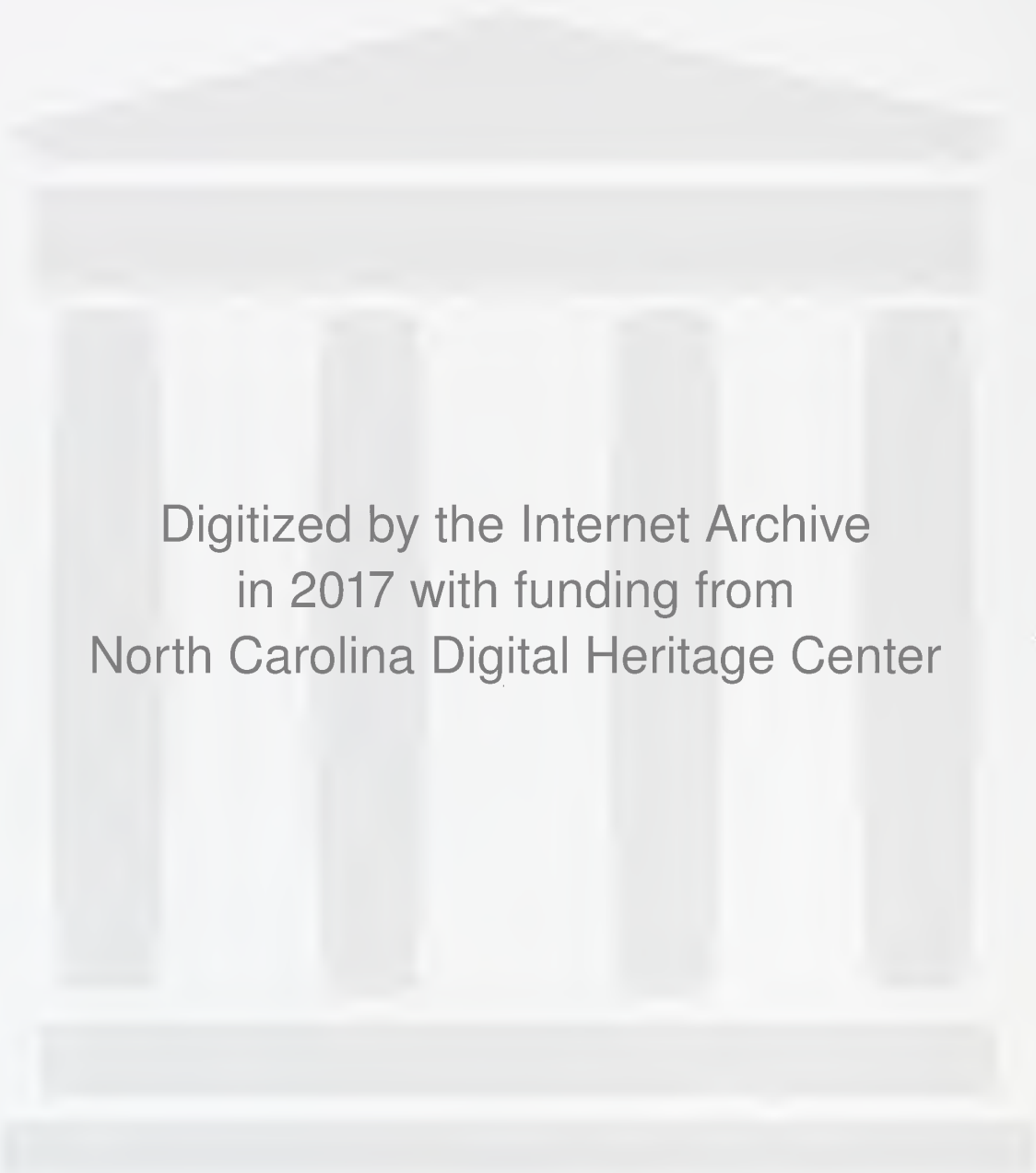
cape fear community college

1998-99
catalog and student handbook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Cape Fear Community College

411 NORTH FRONT STREET
WILMINGTON, NORTH CAROLINA 28401-3993
(910) 251-5100

Affirmative Action / Equal Opportunity College

CATALOG 1998-1999

VOLUME XXIX MAY, 1998

VISITORS

Visitors are always welcome at Cape Fear Community College. The Student Development Office will provide guide service for groups or individuals on weekdays between 8:00 AM and 5:00 PM and will answer questions about the school and its programs. Prospective students are requested, when possible, to notify the Student Development office when they are going to visit. This will ensure that appropriate staff will be available for questions. The school is open until 10:00 PM Monday through Friday unless otherwise posted.

ACCREDITATION

Cape Fear Community College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award associate degrees. The address and telephone number of the Southern Association of Colleges and Schools is 1866 Southern Lane, Decatur, GA 30033-4097 (404) 679-4500.

Cape Fear Community College is a member institution of the North Carolina Community College System, the League for Innovation in Community Colleges, and the American Association of Community and Junior Colleges.

The Cape Fear Community College Associate Degree Nursing program is accredited by the National League for Nursing Accrediting Commission. The address and telephone number of the National League for Nursing Accrediting Commission is 350 Hudson Street, New York, NY 10014 (800) 669-1656.

The Cape Fear Community College Dental Assisting program is accredited by the Commission on Dental Accreditation of the American Dental Association. The address and telephone number of the Commission on Dental Accreditation of the American Dental Association is 211 East Chicago Avenue, Chicago, IL 60611-2678 (800) 621-8099.

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Foreword

Thank you for considering Cape Fear Community College as you make decisions about education and training—decisions that are critical to your future. The entire College family—fellow students, faculty and staff, trustees, and CFCC friends and supporters—joins me in inviting your review of this catalog. Then call and arrange to visit the campus. It would be our pleasure to show you around and to answer any questions.

CFCC offers small classes, personable college staff, and lots of individual assistance for students throughout the course of their studies. This support system—in combination with your dedicated efforts—is a winning formula.

Your future begins now—welcome to Cape Fear Community College!

Eric B. McKeithan
President, Cape Fear Community College

Calendar 1998-99

Fall Semester 1998

Registration	August 17 - 18, 1998
In-Service Training	August 19, 1998
Classes Begin	August 20, 1998
Drop/Add Period	August 20, 21, & 24, 1998
Holiday (College closed)	September 7, 1998
Last Day to Drop a Class with a "W"	September 23, 1998
Advisement Period	November 2 - 13, 1998
Pre-Registration for Spring Semester (currently enrolled students)	November 17, 1998
Fall Break (faculty/students - no classes)	October 1-3, 1998
Holiday (faculty/students)	November 25, 1998
Holiday (College closed)	November 26, 27, & 28, 1998
Classes End	December 17, 1998
Semester Break (faculty/students)	Dec. 18 - Jan. 4, 1999
Holiday (College closed)	December 23, 24, & 25, 1998
Holiday (College closed)	January 1, 1999

Spring Semester 1999

Registration	January 5, 1999
Classes Begin	January 6, 1999
Drop/Add Period	January 6 - 8, 1999
Holiday (College closed)	January 18, 1999
Last Day to Drop a Class with a "W"	February 9, 1999
Spring Break (faculty/students)	March 8 - 13, 1999
Advisement Period	April 5 - 16, 1999
Pre-Registration for Summer Session (currently enrolled students)	April 20, 1999
Pre-Registration for Fall Semester (currently enrolled students)	April 20, 1999
Holiday (College closed)	April 2 & 3, 1999
Classes End	May 6, 1999
Graduation	May 7, 1999
Summer Break (faculty/students)	May 10 - 15, 1999

Summer Session 1999

Registration (summer term/first mini session)	May 17, 1999
Classes Begin (summer term/first mini session)	May 18, 1999
Drop/Add Period (summer term/first mini session)	May 18 - 19, 1999
Last Day to Withdraw with a "W" (first mini session)	May 28, 1999
Holiday (College closed)	May 31, 1999
Last Day to Withdraw with a "W" (summer term)	June 10, 1999
Advisement Period (second mini session - summer/fall)	June 14 - 18, 1999
Pre-Registration (second mini session - currently enrolled students)	June 22, 1999
First Mini Session Ends	June 24, 1999
Registration (second mini session)	June 25, 1999
Classes Begin (second mini session)	June 28, 1999
Drop/Add Period (second mini session)	June 28 - 29, 1999
Holiday (College closed)	July 2, 1999
Holiday (faculty/students)	July 5, 1999
Last Day to Drop with a "W" (second mini session)	July 12, 1999
Advisement Period (fall semester)	July 19, 1999
Pre-Registration (fall semester - currently enrolled students)	July 27, 1999
Classes End	August 5, 1999
Graduation	August 6, 1999

Administration

Dr. Eric B. McKeithan ..... President,
Cape Fear Community College

STATE BOARD OF COMMUNITY COLLEGES

The Honorable Harlan E. Boyles,
State Treasurer, Ex Officio ..... Raleigh, NC
Mr. Hugh Bryant ..... Gastonia, NC
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Mr. Herbert L. Watkins ..... Somers, NY
Mr. Michael L. Weisel ..... Raleigh, NC
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Lieutenant Governor, Ex Officio ..... Raleigh, NC
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Mr. Jon W. Rosborough ..... Wilmington, NC
Mrs. Barbara S. Schwartz ..... Wilmington, NC
President, Student Government Association ..... CFCC

Mission Statement for the North Carolina Community College System

The mission of the North Carolina Community College System is to open the door to opportunity for individuals seeking to improve their lives and well-being by providing:

- Education, training and retraining for the workforce, including basic skills and literacy education, occupational and pre-baccalaureate programs.

- Support for economic development through services to business and industry.

- Services to communities and individuals which improve the quality of life.

Adopted by the State Board of Community Colleges, October 1993; revised March 1994, April 1994.

Mission Statement for Cape Fear Community College

Cape Fear Community College is an open door, comprehensive community college that strengthens the academic, economic, social and cultural life of the citizens of New Hanover and Pender counties by promoting enrichment through lifelong learning.

As a member of the North Carolina Community College System, Cape Fear Community College fully supports the system mission and fulfills its purposes by:

- Focusing on vocational, technical, pre-baccalaureate, basic skills and literacy education, and continuing education programs and services;

- Recruiting, enrolling, advising and retaining a diverse student body;

- Recruiting, retaining and developing a qualified and diverse faculty and staff who are dedicated to quality education and service to the College and the community;

- Evaluating existing programs and implementing new curricula to serve the changing needs of the service area;

• Providing financial, academic, and technological programs and support services that are accessible and help students succeed; and

• Interacting and cooperating with others to encourage, promote and facilitate economic and community development.

Approved by the CFCC Board of Trustees, March 23, 1995; revised January 18, 1996.

The College

Cape Fear Community College is a comprehensive community college that offers education and training services through numerous (1) **TECHNICAL/VOCATIONAL CURRICULA** in such broad areas as health care, business, engineering technologies, computer sciences, architecture/construction/interior design, law enforcement and numerous other fields, (2) **COLLEGE TRANSFER/UNIVERSITY PARALLEL** studies in the freshman and sophomore years of baccalaureate programs, and (3) a host of **CONTINUING EDUCATION** programs that can be broadly clustered into such categories as Basic Skills (including Adult High School and GED, among other programs), Occupational Extension (custom-designed training related directly to the in-service training needs of various professions), and Community Services/Self-Supporting classes that may include a wide range of avocational interests.

The core of the College's mission is world-class workforce development.

CFCC is one of fifty-nine institutions comprising the North Carolina Community College System. The North Carolina Community College System and its constituent institutions operate in accord with legislation enacted by the North Carolina General Assembly and as contained in Chapter 115D of the North Carolina General Statutes. Governance of Cape Fear Community College is further defined by policies, rules, and procedures as promulgated in accord with state and federal laws by the North Carolina State Board of Community Colleges, the Cape Fear Community College Board of Trustees, and College officials.

The service area of Cape Fear Community College includes New Hanover and Pender counties with campuses located in Wilmington, Burgaw, and Hampstead. An additional campus is in the process of being developed in the northern section of New Hanover County. Several CFCC technical and vocational programs are unique to southeastern North Carolina and to the state as a whole, and the College therefore serves as a regional provider of workforce training. The number of different students annually enrolling at the College typically exceeds 21,000.

Admissions

CFCC operates under an open door policy. This means that the College offers instruction to all adults. So if you are 18 years of age or older, or if you have a high school diploma or equivalent, and can benefit from courses and programs offered by our College, WE WELCOME YOU.

While CFCC advises all students to seek a high school diploma or equivalent, admission to diploma or certificate programs may be granted without prior completion. Exceptions include students entering the Dental Assisting, Pharmacy Technology, Phlebotomy and Practical Nursing programs; these students must hold high school diplomas or a recognized equivalency.

Admissions Process

1. Application
An application for admission must be submitted prior to registration.

2. Official high school or General Educational Development (GED) Transcript
An official high school or GED transcript must be sent directly to CFCC from the high school last attended, school which proctored the GED, or state-level GED agency.

3. Official College Transcript(s)
Official college transcripts from all institutions of higher education previously attended must be submitted to CFCC.

4. ASSET Test
Students are required to take the ASSET test prior to acceptance into a curriculum program. (There is no charge for the test). Assessments are used to determine whether students need to enhance their skills in academic areas. Prior college course completion could eliminate this requirement. Students will need to consult with counselors.

Students and prospective students may take the ASSET Assessment twice (2 times) in twelve (12 consecutive months.

Nursing and Allied Health students may take the ASSET Assessment twice (2 times) in twelve (12) consecutive months with each testing session no less than three (3) months apart.

5. Medical Examination
A medical history is required for specific program admission or completion. Students are notified of this requirement as applicable to their programs of study. Selected programs within the College may require drug screening prior to final acceptance into the program. Contact Admissions and Records for further information.

Selective Admission/Health Service Programs

Certain CFCC academic programs have additional entrance requirements. Students applying for admission to those selective admission programs must meet general college admission requirements as well as specific program requirements.

Each of the selective admission programs requires that applicants be a high school graduate or have a GED, meet the minimum placement test scores required for the specific degree program and complete the program application process by the deadline established for that particular program.

Selective admission programs include: Associate Degree Nursing, Dental Assisting, Pharmacy Technology, Phlebotomy, Practical Nursing, Radiography, Speech- Language Pathology Assistant and through a consortium agreement, Physical Therapist Assistant.

Students may visit the Counseling Office for specific program requirements and applications.

Admission of Transfer Students

1. Transfer students must complete CFCC's admission requirements.

2. Credits are transferred from regionally accredited institutions. Courses are transferred that compare in content, quality and credit hours to those offered at CFCC.

3. Only courses with a grade of "C" or better will be transferred from other institutions to CFCC.

4. Credits transferred from other institutions will be denoted on the students CFCC transcript by CT (Course Transfer). Grades achieved at other institutions will not be used in the grade point average computation at CFCC.

5. Credit gained through advanced placement testing, experiential learning or proficiency testing will not be transferred directly as course work.

6. Students should submit copies of all transcripts early enough so that evaluation of transfer credit can be completed prior to registering for classes. Transfer credit for those transcripts received during the registration process will be completed by the end of the first academic session of enrollment.

7. To receive a degree, diploma or certificate from CFCC, transfer students must complete at least 25 percent of program requirements at CFCC.

Admission of Transient Students

Transient students are those who are admitted and enrolled in another college or university and wish to enroll in CFCC as a full-time student for one academic session.

Transient students must:
1. Submit a completed CFCC Admission Application.

2. Submit written permission from their home institution to enroll in CFCC.

3. Provide verification of completion of applicable prerequisites prior to enrolling in CFCC courses.

Provisional Admission

Students whose official transcripts have not been received by the Admissions and Records Office at the time of registration may be admitted provisionally. All admissions requirements must be met within thirty (30) calendar days from the first day of the academic session. Those students who do not meet admissions requirements within thirty (30) calendar days may be dropped from courses and will not be allowed to register until all admission requirements are met. Provisionally admitted students are required to take the ASSET assessment prior to registration.

Admission as a Non-Degree Seeking Student

Students who do not wish to enter degree or diploma programs or are high school students who have special concurrent enrollment permission may enter CFCC as "special credit" students. Students admitted as special credit students may carry only a part-time course load and must have their registration cards approved by a counselor. Special credit students must meet course prerequisites including ASSET testing. Admission as a special credit student does not constitute admission to any curriculum program. Special credit students may attempt no more than 18 credit hours without meeting admissions requirements. Students who exceed this number will not be permitted to register until admissions requirements are met. Students who enter a curriculum program from special credit status, veterans, and Financial Aid recipients must meet all admissions requirements prior to time of registration. Exceptions are programs which do not culminate in a degree, diploma or certificate. Admissions requirements do not apply to these programs.

Admission of Out-of-State Students

Out-of-state students are admitted under the same admission standards as residents of North Carolina. Residency classification for out-of-state students will be determined by the laws of the State of North Carolina. At the time of admission, the Director of Enrollment Management will determine the residency status of the applicant based on the information supplied on the application and any other data deemed appropriate by the Director of Enrollment Management. If the applicant chooses to appeal the classification assigned by the Director of Enrollment Management, he/she must file a written appeal to the Director of Enrollment Management within ten (10) days following the first notification of residency status. The Residency Status Subcommittee of the Judicial Board will review the appeal and make a final determination as to the applicants residency classification.

Applicants wishing additional information about the laws of North Carolina governing residency classification for students should contact the Admissions and Records Office where copies of the law are maintained.

Admission of International Students

The school is authorized under Federal law to admit non-immigrant alien students. Contact the Director of Enrollment Management for admission procedures.

PROGRAMS OF STUDY

AUTHORIZED PROGRAMS OF STUDY	Code	Degree	Diploma	Certificate
Accounting	A25100	AAS		
Air Conditioning, Heating, and Refrigeration Technology	D35100		•	•
Architectural Technology	A40100	AAS		
Associate Degree Nursing	A45100	AAS		
Associate in Arts	A10100	AA		
Associate in Science*	A10400	AS		
Autobody Repair	D60100		•	•
Automotive Systems Technology	A60160	AAS		
Basic Law Enforcement Training	C55120			•
Boat Building	D35120		•	
Business Administration	A25120	AAS		
Carpentry	D35180		•	
Chemical Technology	A20120	AAS		
Computer Engineering Technology	A40160	AAS		
Cosmetology**	D55140		•	
Criminal Justice Technology	A55180	AAS		
Culinary Technology	A55200	AAS		
Dental Assisting	D45240		•	
Early Childhood Associate	A55220	AAS		
Electrical/Electronics Technology	A35220	AAS	•	
Electronics Engineering Technology	A40200	AAS		•
Electronics Engineering Technology (Instrumentation Concentration)	A4020A	AAS		
Environmental Science Technology	A20140	AAS		
Heavy Equipment and Transport Technology	A6024C	AAS	•	
Hotel and Restaurant Management	A25240	AAS		
Industrial Maintenance Technology	D50240		•	
Information Systems	C25260			•
Interior Design	A30220	AAS		
Machining Technology	A50300	AAS		•
Marine Technology	A15320	AAS		
Masonry	D35280		•	
Mechanical Engineering Technology	A40320	AAS		
Mechanical Engineering Technology (Drafting and Design Concentration)	A4032A	AAS		
Medical Transcription	D25320		•	
Office Systems Technology	A25360	AAS		
Paralegal Technology	A25380	AAS		
Pharmacy Technology	D45580		•	
Phlebotomy	C45600			•
Practical Nursing	D45660		•	
Radiography	A45700	AAS		
Real Estate	C25400			•
Real Estate Appraisal	C25420			•
Speech and Language Pathology Assistant	A45730	AAS		
Truck Driver Training	C60300			•
Welding Technology	D50420		•	•

AA - Associate in Fine Arts Degree (College Transfer) Two-Year Program
AAS - (Associate in Applied Science Degree) Two-Year Program
Diploma - One-Year Program

* Pending approval
* *Contingent upon adequate facilities

Minimum Undergraduate Admissions Requirements (MAR)

To enroll in a senior institution in the University of North Carolina System, students whose high school class graduated in 1990 or later must have completed the following high school requirements:

- Four (4) units of English (emphasizing grammar, composition, and literature).
- Three (3) units of mathematics (including Algebra I, geometry and Algebra II or a higher-level math for which Algebra II is a prerequisite).
- Two (2) units of social studies (including one unit of US history).
- Three (3) units of science (including a unit of life or biological science, a unit of physical science, and at least one laboratory course).

If a student has not met all the above requirements, to enroll in the UNC System, he or she may earn an Associate of Arts Degree, Associate of Fine Arts Degree, or Associate of Science Degree. A student may also meet the requirement by completing all the following:

- Six (6) semester hours of freshman composition.
- Six (6) semester hours of college-level mathematics (must have an *M-A-T* prefix).
- Six (6) semester hours of natural sciences.
- Six (6) semester hours of social and behavioral sciences.

The UNC institutions may waive some of the minimum requirements for applicants who require special consideration.

The Comprehensive Articulation Agreement

To facilitate the transfer of students between the North Carolina Community College System and the constituent institutions of the University of North Carolina System, the North Carolina General Assembly mandated the Comprehensive Articulation Agreement (CAA). Currently, the CAA includes only two degrees at the community college level: the Associate in Arts and the Associate in Science. The difference between the two degrees is that the Associate in Science Degree requires a stronger background in math and science than the Associate in Arts Degree. Both degrees consist of a general education core of 44 semester hours; the electives consist of 20-21 semester hours. Only 64 semester hours are *guaranteed* to transfer. Students must also meet the physical education and/or foreign language requirement and any other graduation requirements of the receiving institution.

To receive maximum benefit from the CAA, students may transfer as juniors if they follow these guidelines:

- Earn an Associate in Arts Degree or an Associate in Science Degree.
- Earn a grade of "C" or higher in each course.

- Earn an overall grade-point average of a "C" (course repeats will be included in the calculation).
- Obtain acceptance at the UNC institution.

If students elect not to obtain an associate degree, they may still transfer their general education core provided that they earn a "C" in each course, earn an overall GPA of a "C," and obtain acceptance.

If students do not complete an associate degree or the general education core, receiving institutions will evaluate the transfer credits on a course-by-course basis; and the students will then come under the basic studies requirements of the receiving institution.

Under the CAA, no student is *guaranteed* admission to the UNC institution or to any degree program in the institution. Admission is a competitive process.

The 16 Public Institutions in the University of North Carolina System

Appalachian State University
East Carolina University
Elizabeth City State University
Fayetteville State University
North Carolina A&T State University
North Carolina Central University
North Carolina School of the Arts
North Carolina State University
UNC Asheville
UNC Chapel Hill
UNC Charlotte
UNC Greensboro
UNC Pembroke
UNC Wilmington
Western Carolina University
Winston-Salem State University

ASSOCIATE IN ARTS

Associate in Arts Degree Program

The Associate in Arts Degree program is designed to provide a broad background in the core courses of a liberal arts curriculum comprising the first two years of a four-year baccalaureate degree.

The program is recommended for students who plan to pursue programs of study in business administration, business education, education, law, liberal arts, or any other areas leading to the Bachelor of Arts Degree.

Since requirements vary, it is the responsibility of each student to determine the specific requirements of the senior institution to which he or she plans to transfer. The student should be advised that while individual courses may be considered for transfer credit, most institutions give preference to applicants who have completed the Associate in Arts Degree.

A student is eligible to be granted the Associate in Arts Degree upon completion of 64-65 semester-hour credits, including all required minimums outlined in the following listing.

All statements in this publication are announcements of present policies and may change at any time without prior notice. Cape Fear Community College reserves the right to change program requirements and offerings, regulations, and fees.

Semester Hours Credit

English Composition. 6
ENG 111 Expository Writing 3
ENG 112 Argument-Based Research 3
or
ENG 114 Professional Research and Reporting 3

Humanities/Fine Arts 9
One course must be a literature course.
ENG 131 Introduction to Literature 3
ENG 231 American Literature I 3
ENG 232 American Literature II 3
ENG 241 British Literature I 3
ENG 242 British Literature II 3
ENG 251 Western World Literature I 3
ENG 252 Western World Literature II 3
ENG 261 World Literature I 3
ENG 262 World Literature II 3

The other two courses must be selected from different discipline areas: art, drama, foreign languages, interdisciplinary humanities, literature, philosophy, and religion.

1. ART 111 Art Appreciation 3
   ART 114 Art History Survey I 3
   ART 115 Art History Survey II 3
   ART 116 Survey of American Art 3
   ART 117 Non-Western Art History 3

2. DRA 111 Theatre Appreciation 3
   DRA 211 Theatre History I 3
   DRA 212 Theatre History II 3

3. FRE 111 Elementary French I 3
   FRE 112 Elementary French II 3
   FRE 211 Intermediate French I 3
   FRE 212 Intermediate French II 3
   SPA 111 Elementary Spanish I 3
   SPA 112 Elementary Spanish II 3
   SPA 211 Intermediate Spanish I 3
   SPA 212 Intermediate Spanish II 3

4. HUM 110 Technology and Society 3
   HUM 160 Introduction to Film 3

5. MUS 110 Music Appreciation 3
   MUS 112 Introduction to Jazz 3
   MUS 113 American Music 3

6. PHI 215 Philosophical Issues 3
   PHI 240 Introduction to Ethics 3

7. REL 110 World Religions 3
   REL 221 Religion in America 3

Speech/Communication 3
COM 110 Intro to Communication 3
or
COM 231 Public Speaking 3

Social/Behavioral Sciences 12
Select four courses from at least three of the following areas: anthropology, economics, history, political science, psychology, and sociology. One course must be a history course.

1. ANT 210 General Anthropology 3

2. ECO 151 Survey of Economics 3
   ECO 251 Principles of Microeconomics 3
   ECO 252 Principles of Macroeconomics 3

3. HIS 115 Intro to Global History 3
   HIS 121 Western Civilization I 3
   HIS 122 Western Civilization II 3
   HIS 131 American History I 3
   HIS 132 American History II 3

4. POL 120 American Government 3
   POL 210 Comparative Government 3

5.	PSY 150	General Psychology	3
	PSY 241	Developmental Psych	3
	PSY 281	Abnormal Psychology	3
6.	SOC 210	Introduction to Sociology	3
	SOC 213	Sociology of the Family	3
	SOC 220	Social Problems	3
	SOC 240	Social Psychology	3

Natural Sciences/Mathematics 14

Natural Sciences 8

Select two courses, including accompanying laboratory work, from the biological and physical science disciplines.

1.	AST 111	Descriptive Astronomy	3
	AST 111A	Descriptive Astronomy	1
2.	BIO 111	General Biology I	4
	BIO 112	General Biology II	4
3.	CHM 131	Intro to Chemistry	3
	CHM 131A	Introduction to Chemistry Lab1	
	CHM 132	Organic and Biochemistry	4
	CHM 151	General Chemistry I	4
	CHM 152	General Chemistry II	4
4.	GEL 111	Introductory Geology	4
	GEL 113	Historical Geology	4
	GEL 120	Physical Geology	4
5.	PHY 110	Conceptual Physics	3
	PHY 110A	Conceptual Physics Lab	1
	PHY 151	College Physics I	4
	PHY 152	College Physics II	4
	PHY 251	General Physics I	4
	PHY 252	General Physics II	4

Math 6

Select at least one course in introductory mathematics. The second course may be selected from other quantitative subjects such as computer science and statistics.

1.	MAT 140	Survey of Mathematics	3
	MAT 171	Precalculus Algebra	3
	MAT 175	Precalculus	4
2.	CIS 110	Introduction to Computers	3
	MAT 151	Statistics I	3
	MAT 172	Precalculus Trigonometry	3
	MAT 175	Precalculus	4

Total General Education Core 44

OTHER REQUIRED HOURS 20-21

Other required hours should be selected from pre-major articulation agreements remaining general education core courses, or electives listed below.

ACC 120	Principles of Accounting I	4
ACC 121	Principles of Accounting II	4
ART 121	Design I	3
ART 131	Drawing I	3
ART 132	Drawing II	3
ART 240	Painting I	3
ART 261	Photography I	3
ART 283	Ceramics I	3
BIO 168	Anatomy and Physiology I	4
BIO 169	Anatomy and Physiology II	4
BIO 175	General Microbiology	4
CJC 111	Introduction to Criminal Justice	3
CJC 121	Law Enforcement Operations	3
CJC 141	Corrections	3
CSC 134	C++ Programming	3
EDU 116	Introduction to Education	4
MAT 271	Calculus I	4
MAT 272	Calculus II	4
MAT 273	Calculus III	4
MAT 280	Linear Algebra	3
MAT 285	Differential Equations	3
PED 110	Fit and Well for Life	2
PED 152	Swimming - Beginning	1
PED 166	Sailing - Beginning	1
PED 167	Sailing - Intermediate	1

Total Semester Hours of Other Required Hours 20-21

Total Requirement in Semester Hours 64-65

Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.

Revised: January 30, 1998

Electives Pending State Board Approval in March 1998

ENG 125	Creative Writing I	3
ENG 126	Creative Writing II	3
MAT 140A	Survey of Mathematics Lab	1
MAT 151A	Statistics I Lab	1
MAT 171A	Precalculus Algebra Lab	1
MAT 172A	Precalculus Trig Lab	1
POL 130	State & Local Government	3

These courses currently transfer to The University of North Carolina at Wilmington.

ASSOCIATE IN SCIENCE

*Associate in Science Degree Program**

The Associate in Science Degree program is designed to provide a broad background in the core courses of a liberal arts curriculum comprising the first two years of a four-year baccalaureate degree.

The program is recommended for students who plan to pursue programs of study in agriculture, dentistry, engineering, forestry, mathematics, medicine, pharmacy, science, textiles, or other areas leading to the Bachelor of Science Degree.

Since requirements vary, it is the responsibility of each student to determine the specific requirements of the senior institution to which he or she plans to transfer. The student should be advised that while individual courses may be considered for transfer credit, most institutions give preference to applicants who have completed the Associate in Science Degree.

A student is eligible to be granted the Associate in Science Degree upon completion of 64-65 semester-hour credits, including all required minimums outlined in the following listing.

All statements in this publication are announcements of present policies and may change at any time without prior notice. Cape Fear Community College reserves the right to change program requirements and offerings, regulations, and fees.

Semester Hours Credit

GENERAL EDUCATION CORE 44

English Composition. 6

ENG 111	Expository Writing	3
ENG 112	Argument-Based Research	3
or		
ENG 114	Professional Research and Reporting	3

Humanities/Fine Arts 9

One course must be a literature course.

ENG 131	Introduction to Literature	3
ENG 231	American Literature I	3
ENG 232	American Literature II	3
ENG 241	British Literature I	3
ENG 242	British Literature II	3
ENG 251	Western World Literature I	3
ENG 252	Western World Literature II	3
ENG 261	World Literature I	3
ENG 262	World Literature II	3

The other two courses must be selected from different discipline areas.

1.	ART 111	Art Appreciation	3
	ART 114	Art History Survey I	3
	ART 115	Art History Survey II	3
	ART 116	Survey of American Art	3
	ART 117	Non-Western Art History	3
2.	DRA 111	Theatre Appreciation	3
	DRA 211	Theatre History I	3
	DRA 212	Theatre History II	3
3.	FRE 111	Elementary French I	3
	FRE 112	Elementary French II	3
	FRE 211	Intermediate French I	3
	FRE 212	Intermediate French II	3
	SPA 111	Elementary Spanish I	3
	SPA 112	Elementary Spanish II	3
	SPA 211	Intermediate Spanish I	3
	SPA 212	Intermediate Spanish II	3
4.	HUM 110	Technology and Society	3
	HUM 160	Introduction to Film	3
5.	MUS 110	Music Appreciation	3
	MUS 112	Introduction to Jazz	3
	MUS 113	American Music	3
6.	PHI 215	Philosophical Issues	3
	PHI 240	Introduction to Ethics	3
7.	REL 110	World Religions	3
	REL 221	Religion in America	3

Speech/Communication 3

COM 110	Intro to Communication	3
or		
COM 231	Public Speaking	3

Social/Behavioral Sciences 12

Select four courses from at least three of the following areas. One course must be a history course.

1.	ANT 210	General Anthropology	3
2.	ECO 151	Survey of Economics	3
	ECO 251	Principles of Microeconomics	3
	ECO 252	Principles of Macroeconomics	3
3.	HIS 115	Intro to Global History	3
	HIS 121	Western Civilization I	3
	HIS 122	Western Civilization II	3
	HIS 131	American History I	3
	HIS 132	American History II	3
4.	POL 120	American Government	3
	POL 210	Comparative Government	3

5.	PSY 150	General Psychology	3
	PSY 241	Developmental Psych	3
	PSY 281	Abnormal Psychology	3
6.	SOC 210	Introduction to Sociology	3
	SOC 213	Sociology of the Family	3
	SOC 220	Social Problems	3
	SOC 240	Social Psychology	3

Natural Sciences/Mathematics 14

Natural Sciences 8

Select a two-course sequence in general biology, general chemistry, or general physics.

1.	BIO 111	General Biology I	4
	BIO 112	General Biology II	4
2.	CHM 151	General Chemistry I	4
	CHM 152	General Chemistry II	4
3.	PHY 151	College Physics I	4
	PHY 152	College Physics II	4
	or		
	PHY 251	General Physics I	4
	PHY 252	General Physics II	4

Math 6

Select at least one course in mathematics at the precalculus algebra level or above. The second course may be a higher level mathematics course or may be selected from other quantitative subjects such as computer science and statistics.

1.	MAT 171	Precalculus Algebra	3
	MAT 175	Precalculus	4
2.	CIS 110	Introduction to Computers	3
	MAT 151	Statistics I	3
	MAT 172	Precalculus Trigonometry	3
	MAT 175	Precalculus	4

Total General Education Core 44

OTHER REQUIRED HOURS 20-21

A minimum of 14 SHC of college transfer courses in mathematics, natural sciences, computer science, and/or other pre-major courses is required.

AST 111	Descriptive Astronomy	3
AST 111A	Descriptive Astronomy Lab	1
BIO 168	Anatomy and Physiology I	4
BIO 169	Anatomy and Physiology II	4
BIO 175	General Microbiology	4
CSC 134	C++ Programming	3
MAT 271	Calculus I	4
MAT 272	Calculus II	4
MAT 273	Calculus III	4
MAT 280	Linear Algebra	3
MAT 285	Differential Equations	3
PHY 110	Conceptual Physics	3
PHY 110A	Conceptual Physics Lab	1

The remaining hours may be selected from elective transfer courses.

ACC 120	Principles of Accounting I	4
ACC 121	Principles of Accounting II	4
ART 121	Design I	3
ART 131	Drawing I	3
ART 132	Drawing II	3
ART 240	Painting I	3
ART 261	Photography I	3
ART 283	Ceramics I	3
CJC 111	Introduction to Criminal Justice	3
CJC 121	Law Enforcement Operations	3
CJC 141	Corrections	3
EDU 116	Introduction to Education	4
GEL 111	Introductory Geology	4
GEL 113	Historical Geology	4
GEL 120	Physical Geology	4
PED 110	Fit and Well for Life	2
PED 152	Swimming - Beginning	1
PED 166	Sailing - Beginning	1
PED 167	Sailing - Intermediate	1

Total Semester Hours of Other Required Hours..... 20-21

Total Requirement in Semester Hours 64-65

Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.

The Associate in Science Degree program is being submitted to the Department of Community Colleges for approval and is expected to be approved by July 1998.

Electives Pending State Board Approval in March 1998

ENG 125	Creative Writing I	3
ENG 126	Creative Writing II	3
MAT 151A	Statistics I Lab	1
MAT 171A	Precalculus Algebra Lab	1
MAT 172A	Precalculus Trig Lab	1
POL 130	State & Local Government	3

These courses currently transfer to The University of North Carolina at Wilmington.

* Pending approval

ASSOCIATE IN APPLIED SCIENCE

Accounting

The Accounting curriculum is designed to provide students with the knowledge and the skills necessary for employment and growth in the accounting profession. Using the "language of business," accountants assemble and analyze, process, and communicate essential information about financial operations.

In addition to course work in accounting principles, theories, and practice, students will study business law, finance, management, and economics. Related skills are developed through the study of communications, computer applications, financial analysis, critical thinking skills, and ethics.

Graduates should qualify for entry-level accounting positions in many types of organizations including accounting firms, small businesses, manufacturing firms, banks, hospitals, school systems, and governmental agencies. With work experience and additional education, an individual may advance in the accounting profession.

		Semester Hour Credits
I. General Education Course		
ENG 111	Expository Writing	3
ENG 114	Professional Research & Reporting	3
MAT 115	or higher or 3 SHC Natural Science	3
Behavioral/Social Science Elective		3
Humanities/Fine Arts Elective		3
II. Major Courses		
ACC 120	Principles of Accounting I	4
ACC 121	Principles of Accounting II	4
ACC 131	Federal Income Taxes	3
ACC 150	Computerized General Ledger	2
ACC 220	Intermediate Accounting I	4
ACC 221	Intermediate Accounting II	4
ACC 225	Cost Accounting	3
ACC 269	Auditing	3
BUS 115	Business Law	3
BUS 121	Business Math	3
BUS 137	Principles of Management	3
BUS 225	Business Finance	3
BUS 240	Business Ethics	3
CIS 111	Basic PC Literacy	2
CIS 120	Spreadsheet I	3
CIS 152	Database Concepts and Applications	3
ECO 151	Survey of Economics	3

Students are required to take at least 3 SHC from among the following:

BUS 239	Business Applications Seminar	2
BUS 280	R.E.A.L. Small Business	4
COE 111	Co-op Experience I	1
COE 121	Co-op Experience II	1
COE 131	Co-op Experience III	1
OST 136	Word Processing	2
Total Credits		**71**

FALL SEMESTER I	FALL SEMESTER II
ACC 120	ACC 131
BUS 115	ACC 150
BUS 121	ACC 220
CIS 111	BUS 225
ENG 111	ECO 151
	Behavioral/Social Sci. Elect.
SPRING SEMESTER I	**SPRING SEMESTER II**
ACC 121	ACC 221
CIS 152	ACC 225
ENG 114	ACC 269
MAT 115 or higher . . .	BUS 137
Humanities/Fine Arts Elect.	BUS 240
	CIS 120
	Business Elective

Architectural Technology

The Architectural Technology curriculum prepares individuals with knowledge and skills that can lead to employment in the field of architecture or one of the associated professions.

Students receive instruction in construction document preparation, materials and methods, environmental and structural systems, building codes and specifications, and computer applications as well as complete a design project. Optional courses may be provided to suit specific career needs.

Upon completion, graduates have career opportunities within the architectural, engineering, and construction professions as well as positions in industry and government. At participating universities, graduates may continue their education toward a bachelor's degree in related fields.

		Semester Hour Credits
I. General Education Course		
Behavioral/Social Science Elective		3
ENG 111	Expository Writing	3
ENG 115	Oral Communication	3
Humanities/Fine Arts Elective		3
MAT 121	Algebra/Trigonometry I	3

II. Major Courses

ARC 111	Introduction to Architectural Technology	3
ARC 112	Construction Materials and Methods	4
ARC 113	Residential Architectural Technology	3
ARC 114	Architectural CAD	2
ARC 114A	Architectural CAD Lab	1
ARC 131	Building Codes	3
ARC 211	Light Construction Technology	3
ARC 213	Design Project	4
ARC 220	Advanced Architect CAD	2
ARC 221	Architectural 3-D CAD	3
ARC 230	Environmental Systems	4
ARC 231	Architectural Presentations	4
ARC 235	Architectural Portfolio	3
ARC 241	Contract Administration	2
ARC 250	Survey of Architecture	3
ARC 264	Digital Architecture	2
CIS 111	Basic PC Literacy	2
MAT 122	Algebra/Trigonometry II	3
PHY 131	Physics/Mechanics	4

Total Credits 70

FALL SEMESTER I	FALL SEMESTER II
ARC 111	ARC 211
ARC 112	ARC 221
CIS 111	ARC 231
ENG 111	PHY 131
Humanities/Fine Arts Elective	Behav./Soc. Science Elect.
MAT 121	

SPRING SEMESTER I	SPRING SEMESTER II
ARC 113	ARC 213
ARC 114	ARC 235
ARC 114A	ARC 241
ARC 131	ARC 250
ENG 115	ARC 264
MAT 122	

SUMMER SEMESTER I
ARC 220
ARC 230

Associate Degree Nursing

The Associate Degree Nursing (integrated) curriculum provides individuals with the knowledge and skills necessary to provide nursing care to clients and groups of clients throughout the lifespan in a variety of settings.

Courses will include content related to the nurse's role as provider of nursing care, as manager of care, as member of the discipline of nursing, and as a member of the interdisciplinary team.

Graduates of this program are eligible to apply to take the National Council Licensure Examination (NCLEX-RN) which is required for practice as a Registered Nurse. Employment opportunities include hospitals, long term care facilities, clinics, physician's offices, industry, and community agencies.

Semester Hour Credits

I. General Education Courses

BIO 168	Anatomy & Physiology I	4
BIO 169	Anatomy & Physiology II	4
ENG 111	Expository Writing	3
ENG 114	Professional Research & Reporting	3
Humanities/Fine Arts Elec		3
PSY 150	General Psychology	3

II. Major Courses

BIO 175 General Microbiology	3
NUR 110 Nursing I	8
NUR 120 Nursing II	8
NUR 130 Nursing III	7
NUR 210 Nursing IV	10
NUR 220 Nursing V	10
PSY 241 Developmental Psych	3

III. Other Required Courses

CIS 111 Basic PC Literacy	2
** NUR 189 Nursing Transition	2

** This course required only for LPN's transitioning into the program

Total Credits ..... 71 or 73

FALL SEMESTER I	FALL SEMESTER II
BIO 168	BIO 175
NUR 110	ENG 111
PSY 150	NUR 210

SPRING SEMESTER I	SPRING SEMESTER II
BIO 169	ENG 114
NUR 120	Humanities/Fine Arts Elect
PSY 241	NUR 220

SUMMER SEMESTER I
CIS 111
NUR 130

Automotive Systems Technology

The Automotive Systems Technology curriculum prepares individuals for employment as Automotive Service Technicians. It provides an introduction to automotive careers and increases student awareness of the challenges associated with this fast and ever-changing field.

Classroom and lab experiences integrate technical and academic course work. Emphasis is placed on theory, servicing and operation of brakes, electrical/electronic systems, engine performance, steering/suspension, automatic transmission/transaxles, engine repair, climate control, and manual drive trains.

Upon completion of this curriculum, students should be prepared to take the ASE exam and be ready for full-time employment in dealerships and repair shops in the automotive service industry.

		Semester Hour Credits
I. General Education Courses		
ENG 111	Expository Writing	3
ENG 115	Oral Communication	3
Humanities/Fine Art Elective		3
MAT 120	Geometry and Trigonometry	3
Social/Behavioral Science Elective		3
II. Major Courses		
AUT 111	Basic Auto Technology	2
AUT 115	Engine Fundamentals	3
AUT 116	Engine Repair	2
AUT 141	Suspension & Steering Systems	4
AUT 151	Brake Systems	3
AUT 152	Brake Systems Lab	1
AUT 161	Electrical Systems	4
AUT 164	Automotive Electronics	3
AUT 171	Heating and Air Conditioning	3
AUT 181	Engine Performance-Electrical	3
AUT 183	Engine Performance-Fuels	3
AUT 184	Engine Performance-Fuels Lab	1
AUT 221	Automatic Transmissions	4
AUT 222	Advanced Auto Drive Trains	3
AUT 231	Manual Drive Trains/Axles	3
AUT 241	Advanced Chassis/Suspension	4
AUT 271	Advanced Heating & Air Conditioning	3
AUT 281	Advanced Engine Performance	3
AUT 282	Engine Electrical Management	6
CIS 111	Basic PC Literacy	2
Total Credits:		**75**

FALL SEMESTER I
AUT 111
AUT 115
AUT 151
AUT 161
ENG 115

FALL SEMESTER II
AUT 221
AUT 222
AUT 241
AUT 281
MAT 120

SPRING SEMESTER I
AUT 116
AUT 141
AUT 152
AUT 164
AUT 171
CIS 111

SPRING SEMESTER II
AUT 231
AUT 271
AUT 282
ENG 111
Social/Behav. Science Elect

SUMMER SEMESTER I
AUT 181
AUT 183
AUT 184
Humanities/Fine Art Elective

Business Administration

The Business Administration curriculum is designed to introduce students to the various aspects of the free enterprise system. Students will be provided with fundamental knowledge of business functions, processes, and an understanding of business organizations in today's global economy.

Course work includes business concepts such as accounting, business law, economics, management, and marketing. Skills related to the application of these concepts are developed through the study of computer applications, communication, team building, and decision making.

Through these skills, students will have a sound business education base for lifelong learning. Graduates are prepared for employment opportunities in government agencies, financial institutions, and large to small business or industry.

		Semester Hour Credits
I. General Education Courses		
Behavioral/Social Science Elective		3
ENG 111	Expository Writing	3
ENG 114	Professional Research & Reporting	3
Humanities/Fine Arts Elective		3
MAT 115 or higher or 3 SHC Natural Science		3
II. Major Courses		
ACC 120	Principles of Accounting I	4
ACC 121	Principles of Accounting II	4
ACC 131	Federal Income Taxes	3
ACC 150	Computerized General Ledger	2
ACC 225	Cost Accounting	3
BUS 115	Business Law	3
BUS 121	Business Math	3
BUS 137	Principles of Management	3

BUS 225	Business Finance	3
BUS 239	Business Applications Seminar	2
CIS 111	Basic PC Literacy	2
CIS 120	Spreadsheet I	3
CIS 152	Database Concepts and Applications	3
ECO 151	Survey of Economics	3
MKT 120	Principles of Marketing	3
OST 131	Keyboarding	2
OST 136	Word Processing	2

Students are required to take at least 3 SHC from among the following:

ACC 220	Intermediate Accounting I	4
BUS 230	Small Business Management	3
BUS 240	Business Ethics	3
BUS 280	R.E.A.L. Small Business	4
COE 111	Co-op Work Experience I	1
COE 121	Co-op Work Experience II	1
COE 131	Co-op Work Experience III	1

Total Credits 66

FALL SEMESTER I	FALL SEMESTER II
ACC 120	ACC 131
BUS 115	ACC 150
BUS 121	ACC 225
CIS 111	BUS 225
ENG 111	ECO 151
OST 131	MKT 120
SPRING SEMESTER I	**SPRING SEMESTER II**
Behav/Social Science Elect	ACC 225
ACC 121	BUS 137
CIS 152	BUS 239
ENG 114	CIS 120
MAT 115 or higher . . .	Business Elective
OST 136	Humanities/Fine Arts Elect

Chemical Technology

The Chemical Technology curriculum prepares individuals for work as analytical technicians in chemical laboratories associated with chemical production, environmental concerns, pharmaceuticals, or general analysis.

Course work includes general chemistry, organic chemistry, introductory chemical engineering, qualitative analysis, and quantitative analysis, including such instrumental techniques as spectroscopy (UV-Vis, IR, AA) and chromatography (GC, LC). Students also utilize computerized data collection, reduction, and graphic presentation.

Graduates should qualify as entry-level chemical laboratory technicians. Their duties may include chemical solution preparation, raw material, product, or environmental sampling, and/or sample testing via wet chemistry or instrumental techniques.

Semester Hour Credits

I. General Education Course

ENG 111	Expository Writing	3
ENG 115	Oral Communication	3
Humanities Elective		3
MAT 121	Algebra/Trigonometry I	3
MAT 122	Algebra/Trigonometry II	3
PHY 121	Applied Physics I	4
PSY 150	Introduction to Psychology	3

II. Major Courses

BIO 110	General Biology I	4
BIO 175	Microbiology	3
CTC 111	Basic Chemistry I	7
CTC 112	Basic Chemistry II	7
CTC 120	Organic Chemistry I	2
CTC 140	Unit Processes	6
CTC 220	Organic Chemistry II	5
CTC 230	Organic Chemistry III	5
CTC 240	Industrial Analysis I	5
CTC 250	Industrial Analysis II	5
HEA 111	First Aid & Safety	2

Total Credits 73

FALL SEMESTER I	FALL SEMESTER II
CTC 111	BIO 110
ENG 111	CTC 220
MAT 121	CTC 240
PSY 150	PHY 121
SPRING SEMESTER I	**SPRING SEMESTER II**
CTC 112	BIO 175
CTC 120	CTC 230
ENG 115	CTC 250
MAT 122	Humanities Elective

SUMMER SEMESTER I
CTC 140
HEA 111

Computer Engineering Technology

The Computer Engineering Technology curriculum provides the skills required to install, service, and maintain computers, peripherals, networks, and microprocessor and computer controlled equipment. It includes training in both hardware and software, emphasizing operating systems concepts to provide a unified view of computer systems.

Course work includes mathematics, physics, electronics, digital circuits and programming, with emphasis on the operation, use, and interfacing of memory and devices to the CPU. Additional topics may include communications, networks, operating systems, programming languages, Internet configuration and design, and industrial applications.

Graduates should qualify for employment opportunities in electronics technology, computer service, computer networks, server maintenance, programming, and other areas requiring a knowledge of electronic and computer systems. Graduates may also qualify for certification in electronics, computers, or networks.

Semester Hour Credits

I. General Education Course

ENG 111	Expository Writing	3
ENG 114	Professional Research &	3
HUM 110	Technology and Society	3
MAT 121	Algebra/Trigonometry I	3
PSY 118	Interpersonal Psychology	3

II. Major Courses

CET 111	Computer Upgrade/Repair I	3
CET 211	Computer Upgrade/Repair II	3
CET 212	Integrated Mfg. Systems	2
CIS 111	Basic PC Literacy	2
CIS 130	Survey of Operating Systems	3
CIS 172	Intro to the Internet	3
CSC 248	Advanced Internet Programming	3
CSC 133	C Programming	3
CSC 134	C++ Programing	3
EGR 131	Intro to Elec. Technology	2
ELC 131	DC/AC Circuit Analysis	5
ELN 131	Electronic Devices	4
ELN 133	Digital Electronics	4
ELN 232	Intro to Microprocessors	4
ELN 237	Local Area Networks	3
ELN 238	Advanced LANs	3
MAT 122	Algebra/Trigonometry II	3
PHY 131	Physics - Mechanics	4

Select 2 SHC from the following courses:

COE 111	Co-Op Work Experience 1	1
COE 121	Co-Op Work Experience 2	1
EGR 285	Design Project	2

Total Credits: 72

FALL SEMESTER I
CET 111
CIS 111
EGR 131
ELC 131
ENG 111
MAT 121

FALL SEMESTER II
CIS 130
CSC 134
ELN 232
ELN 237
PSY 118

SPRING SEMESTER I
CET 211
CIS 172
CSC 133
ELN 131
MAT 122

SPRING SEMESTER II
CET 212
CSC 248
EGR 285
ELN 238
ENG 114
HUM 110

SUMMER SEMESTER I
ELN 133
PHY 131

Criminal Justice Technology

The Criminal Justice Technology curriculum is designed so that it may be a multi-faceted program of study. It may consist of study options in corrections, law enforcement and security services.

The curriculum is designed with a core of courses to afford one the opportunity to acquire basic knowledge, skills and attitudes in the generally accepted subject areas associated with a two-year study of correctional services, law enforcement services and security services. It includes subjects such as interpersonal communications, law, psychology and sociology.

In addition to core subjects, the correctional services option provides an opportunity to study other generally accepted subjects indigenous to a two-year correctional services program such as confinement facility administration, correctional law, counseling, probation-parole services and rehabilitation options. Similarly, the law enforcement option provides an opportunity to study other generally accepted subjects included in a two-year law enforcement services program such as criminal behavior, criminal investigation, patrol operation, traffic management, and other aspects of law enforcement administration and operations. The security services option provides an opportunity to study other generally accepted subjects related to a two-year security services program such as accident prevention and safety management, common carrier protection, fire prevention, private security, industrial security, retail security, security systems and surveillance.

Job opportunities are available with federal, state, county and municipal governments. In addition, knowledge, skills and attitudes acquires in this course of study qualify one for job opportunities with private enterprise in such areas as industrial, retail and private security.

		Semester Hour Credits
I. General Education Courses		
BIO 110	Principles of Biology	4
COM 231	Public Speaking	3
ENG 111	Expository Writing	3
MAT 120	Geometry/ Trigonometry I	3
SOC 210	Intro To Sociology	3
Humanities/Fine Art Elective		3
II. Major Courses		
CIS 111	Basic PC Literacy	2
CJC 111	Introduction to Criminal Justice	3
CJC 112	Criminology	3
CJC 113	Juvenile Justice	3
CJC 114	Investigatory Photo	2
CJC 120	Interviewing and Interrogation	2
CJC 121	Law Enforcement Operations	3
CJC 131	Criminal Law	3
CJC 132	Court Proc & Evidence	3
CJC 141	Corrections	3
CJC 212	Ethics & Community Relations	3
CJC 213	Substance Abuse	3
CJC 214	Victimology	3
CJC 215	Organization & Adm.	3
CJC 221	Investigative Principal	4
CJC 222	Criminalistics	3
CJC 231	Constitutional Law	3
CJC 250	Forensic Biology	2
Total Credits:		**70**

CRIMINAL JUSTICE TECHNOLOGY (DAY)

FALL SEMESTER I	FALL SEMESTER II
CJC 111	CJC 120
CJC 132	CJC 131
CJC 214	CJC 215
ENG 111	COM 231
Humanities/Fine Arts Elect	SOC 210
SPRING SEMESTER I	**SPRING SEMESTER II**
BIO 110	CJC 112
CIS 111	CJC 141
CJC 213	CJC 222
CJC 231	MAT 120
CJC 250	
SUMMER SEMESTER I	
CJC 113	
CJC 121	
CJC 212	
CJC 221	

CRIMINAL JUSTICE TECHNOLOGY
(NIGHT PROGRAM) BEGINNING FALL, 1997 AND EACH ODD NUMBER YEAR THEREAFTER.

FALL SEMESTER I	FALL SEMESTER III
ENG 111	CJC 121
CJC 111	CJC 131
SPRING SEMESTER I	**SPRING SEMESTER III**
CJC 132	CJC 114
CJC 214	CJC 215
SUMMER SEMESTER I	**SUMMER SEMESTER III**
CJC 231	CJC 120
Humanities/Fine Arts Elect	SOC 210
FALL SEMESTER II	**FALL SEMESTER IV**
BIO 110	CJC 112
CJC 250	COM 231
SPRING SEMESTER II	**SPRING SEMESTER IV**
CJC 113	CIS 111
CJC 213	MAT 120
SUMMER SEMESTER II	**SUMMER SEMESTER IV**
CJC 212	CJC 141
CJC 221	CJC 222

Culinary Technology

The Culinary Technology curriculum provides specific training required to prepare students to assume positions as trained culinary professionals in a variety of food service settings including full service restaurants, hotels, resorts, clubs, catering operations, contract food service, and health care facilities.

Course offerings emphasize practical application, a strong theoretical knowledge base, and professionalism and provides the critical competencies to successfully meet industry demands. Courses also include sanitation, food/beverage service and control, baking, garde manager, American/international cuisines, food production, and hospitality supervision.

Graduates should qualify for entry-level positions such as line cook, station chef, and assistant pastry chef. American Culinary Federation certification is available to graduates. With experience, graduates may advance to positions such sous-chef, executive chef, or food service manager.

		Semester Hour Credits
I. General Education Courses		
COM 110	Intro Communication	3
ENG 111	Expository Writing	3
Humanities/Fine Arts Elective		3
MAT 115 or higher or 3 SHC Natural Science		3
Social/Behavioral Science Elective		3

II. Major Courses

COE 113	Cooperative Education	3
CUL 110	Sanitation and Safety	2
CUL 110A	Sanitation and Safety Lab	1
CUL 120	Purchasing	2
CUL 120A	Purchasing Lab	1
CUL 125	Hospitality Information Systems	2
CUL 130	Menu	2
CUL 135	Service	2
CUL 135A	Food and Beverage Service Lab	1
CUL 140	Basic Culinary Skills	5
CUL 150	Food Science	2
CUL 160	Baking I	3
CUL 170	Garde Manager I	3
CUL 240	Advanced Culinary Skills	5
HRM 220	Food and Beverage Control	3
HRM 220A	Food and Beverage Control Lab	1
HRM 225	Beverage Management	2
HRM 245	Hospitality Human Resource Management	3
NUT 110	Nutrition	3

Students must take at least 8 SHC from among the following:

CUL 180	International/Regional Cuisine	5
CUL 210	Special Populations	5
CUL 214	Wine Appreciation	2
CUL 220	Food Service for Special Operations	5
CUL 250	Classical Cuisine	5
CUL 260	Baking II	3
CUL 270	Garde Manager II	3
CUL 280	Pastries and Confections	3

Pending approval by State Board of Community Colleges. Approval anticipated May, 1998.

Total Credits 69

FALL SEMESTER I
CUL 110
CUL 110A
CUL 125
CUL 135
CUL 135A
CUL 140
CUL 150
CUL 170

FALL SEMESTER II
COM 110
CUL Elective
CUL Elective
CUL 120
CUL 120A
HRM 220
HRM 220A

SPRING SEMESTER I
CUL 130
CUL 160
CUL 240
MAT 115 or higher
NUT 110

SPRING SEMESTER II
CUL Elective
ENG 111
HRM 225
HRM 245
Humanities Elective
Social/Behav Science Elect

SUMMER SEMESTER I
COE 113

Drafting and Design Technology

Drafting and Design is a concentration under the curriculum title of Mechanical Engineering Technology. This curriculum prepares graduates to draft and/or design machine parts, mechanisms, and mechanical systems. Computer-aided drafting (CAD) will be emphasized as the primary method of producing drawings/documentation.

Course work ineludes manual and computer-aided drafting equipment, materials, statics, manufacturing methods and processes, mathematics, physics, and written and oral communications. Students should acquire skills such as thinking and planning with the emphasis on drafting and design skills.

Graduates of this curriculum will qualify to work in many fields of drafting. Drafting and design technicians are employed in manufacturing, research and development, engineering and service firms, government agencies, and related specialities.

Semester Hour Credits

I. General Education Course

ENG 111	Expository Writing	3
ENG 115	Oral Communication	3
Humanities/Fine Arts Elective		3
MAT 121	Algebra/Trigonometry I	3
SOC 210	Introduction to Sociology	3

II. Major Courses

DDF 211	Design Drafting I	4
DDF 212	Design Drafting II	4
DDF 213	Design Drafting III	4
DDF 214	Tool Design	4
DFT 111	Technical Drafting I	4
DFT 112	Technical Drafting II	4
DFT 151	CAD I	3
DFT 152	CAD II	3
DFT 221	Electrical Drafting	4
HYD 110	Hydraulics/Pneumatics I	3
MAT 122	Algebra/Trigonometry II	3
MEC 110	Introduction to CAD/CAM	2
MEC 111	Machine Processes I	3
MEC 145	Manufacturing Materials I	3
MEC 250	Statics and Strength	5
PHY 131	Physics - Mechanical	4
PHY 132	Physics - Elect. & Mag.	4

Total Credits 76

FALL SEMESTER I
DFT 111
DFT 151
ENG 111
MAT 121
MEC 145

FALL SEMESTER II
DDF 212
DFT 221
Humanities/Fine Arts Elect
PHY 132
SOC 210

SPRING SEMESTER I
DFT 112
DFT 152
ENG 115
MAT 122
MEC 111

SPRING SEMESTER II
DDF 213
DDF 214
HYD 110
MEC 250

SUMMER SEMESTER I
DDF 211
PHY 131
MEC 110

Early Childhood Associate

The Early Childhood Associate curriculum prepares individuals to work with children from infancy through middle childhood in diverse learning environments. Students will combine learned theories with practice in actual settings with young children under the supervision of qualified teachers.

Course work includes child growth and development; physical/nutritional needs of children; care and guidance of children; and communication skills with parents and children. Students will foster the cognitive/language, physical/motor, social/emotional and creative development of young children.

Graduates are prepared to plan and implement developmentally appropriate programs in early childhood settings. Employment opportunities include child development and child care programs, preschools, public and private schools, recreational centers, Head Start Programs, and school age programs.

Semester Hour Credits

I. General Education Courses
ENG 111 Expository Writing 3
ENG 114 Professional Research & Reporting 3
Humanities/Fine Arts Elective 3
MAT 115 or higher or 3 SHC Natural Science 3
PSY 150 General Psychology 3

II. Major Courses
COE 111 Co-op Work Experience 1
COE 115 Work Seminar I 1
EDU 111 Early Childhood Credential I 2
EDU 112 Early Childhood Credential II 2
or
EDU 113 Family Credential 2

EDU 131 Children, Family & Community 3
EDU 146 Child Guidance 3
EDU 221 Children with Special Needs 3
EDU 151 Creative Activities 3
EDU 151A Creative Activities Lab 1
EDU 153 Health, Safety, Nutrition 3
EDU 188 Issues in Early Childhood 2
EDU 185 Cognitive/Language Activities 3
EDU 185A Cognitive/Language 1
EDU 234 Infant, Toddler & Twos 3
EDU 251 Exploration Activities 3
EDU 251A Exploration Activities Lab 1
EDU 259 Early Childhood Curriculum Planning 3
EDU 261 Early Childhood Administration 2
EDU 262 Early Childhood Administration II 3
PSY 244 Child Development I 3
PSY 245 Child Development II 3
SOC 210 Introduction to Sociology 3
SOC 213 Sociology of the Family 3

III. Other Required Courses
CIS 111 Basic PC Literacy 2

Total Credits 72

FALL SEMESTER I
EDU 111
EDU 151
EDU 151A
EDU 188
ENG 111
MAT 115
PSY 150

FALL SEMESTER II
EDU 185
EDU 185A
EDU 234
EDU 259
EDU 261
Humanities/Fine Arts Elect
PSY 245

SPRING SEMESTER I
EDU 112 OR EDU 113
EDU 131
EDU 146
EDU 153
PSY 244
SOC 210

SPRING SEMESTER II
COE 111
COE 115
EDU 221
EDU 251
EDU 251A
EDU 262
SOC 213

SUMMER SEMESTER I
CIS 111
ENG 114
Humanities/Fine Arts Elective (if offered)

Electrical/Electronics Technology

The Electrical/Electronics Technology curriculum is designed to provide training for persons interested in the installation and maintenance of electrical/electronic systems found in residential, commercial and industrial facilities.

Training, most of which is hands-on, will include such topics as AC/DC theory, basic wiring practices, digital electronics, programmable logic controllers, industrial motor controls, the National Electric Code, and other subjects as local needs require.

Graduates should qualify for a variety of jobs in the electrical/electronic field as an on-the-job trainer or apprentice, assisting in the layout, installation, and maintenance of electrical/electronic systems.

Semester Hour Credits

I. General Education Courses

ENG 111	Expository Writing	3
ENG 114	Professional Research & Reporting	3
Humanities/Fine Arts Elective		3
MAT 121	Algebra/Trigonometry I	3
Social/Behavioral Science Elective		3

II. Major Courses

BPR 130	Blueprint Reading/Construction	2
CIS 111	Basic PC Literacy	2
ELC 112	DC/AC Electricity	5
ELC 113	Basic Wiring I	4
ELC 114	Basic Wiring II	4
ELC 115	Industrial Wiring	4
ELC 117	Motors and Controls	4
ELC 118	National Electrical Code	2
ELC 119	NEC Calculations	2
ELC 125	Diagrams & Schematics	2
ELC 128	Introduction to PLC	3
ELC 228	PLC Applications	4
ELC 229	Applications Project	2
ELN 133	Digital Electronics	4
ELN 229	Industrial Electronics	4
ELN 131	Electronic Devices	4
HYD 110	Hydraulics/Pneumatics I	3

Total Credits: 70

FALL SEMESTER I
BPR 130
CIS 111
ELC 112
ELC 113
MAT 121

SPRING SEMESTER I
ELC 114
ELC 117
ELC 118
ELC 125
ENG 111

SUMMER SEMESTER I
ELC 115
ELC 119
ELC 128

FALL SEMESTER II
ELN 131
ELN 133
ENG 114
ENG 114
Humanities/Fine Arts Elect
HYD 110

SPRING SEMESTER II
ELC 228
ELC 229
ELN 229
Social/Behav Science Elect

Electronics Engineering Technology

The Electronics Engineering Technology curriculum prepares individuals to become technicians who design, build, install, test, troubleshoot, repair, and modify developmental and production electronic components, equipment, and systems such as industrial/computer controls, manufacturing systems, communication systems, and power electronic systems.

A broad-based core of courses, including basic electricity, solid-state fundamentals, digital concepts, and microprocessors, ensures the student will develop the skills necessary to perform entry-level tasks. Emphasis is placed on developing the student's ability to analyze and troubleshoot electronic systems.

Graduates should qualify for employment as engineering assistants or electronic technicians with job titles such as electronics engineering technician, field service technician, maintenance technician, electronic tester, electronic systems integrator, bench technician, and production control technician.

Semester Hour Credits

I. General Education Courses

Elective - Humanities/Fine Arts		3
Elective - Social/Behavioral Science		3
ENG 111	Expository Writing	3
ENG 114	Professional Research & Reporting	3
MAT 121	Algebra/Trigonometry I	3

II. Major Courses

CET 111	Computer Upgrade and Repair	3
CET 212	Integrated Manufacturing Systems	2
CIS 111	Basic PC Literacy	2
CSC 133	C Language Programming	3

ELC 131	DC/AC Circuit Analysis	5
ELC 135	Electrical Machines I	3
EGR 131	Intro to Electronics Technology	2
ELN 131	Electronic Devices	4
ELN 132	Linear IC Applications	4
ELN 133	Digital Electronics	4
ELN 232	Intro to Microprocessors	4
ELN 234	Communication Systems	4
ELN 236	Fiber Optics and Lasers	4
ELN 237	Local Area Networks	3
ELN 260	Prog Logic Controllers	4
MAT 122	Algebra/Trigonometry II	3
PHY 131	Physics- Mechanics	4

Select 3 SHC from the following courses:

CET 211	Computer Upgrade & Repair II	3
COE 111	Co-Op Work Experience 1	1
COE 121	Co-Op Work Experience 2	1
COE 131	Co-Op Work Experience 3	1

Total Credits: 76

FALL SEMESTER I	FALL SEMESTER II
CET 111	ELN 232
CIS 111	ELN 234
EGR 131	ELN 237
ELC 131	Humanities/Fine Arts Elect
ENG 111	PHY 131
MAT 121	

SPRING SEMESTER I	SPRING SEMESTER II
CSC 133	CET 211 or Co-Op
ELC 135	CET 212
ELN 131	ELN 236
ENG 114	ELN 260
MAT 122	Soc./Behav. Sci. Elective

SUMMER SEMESTER I
ELN 132
ELN 133

Environmental Science Technology

The Environmental Science Technology curriculum is designed to prepare individuals for employment in environmental testing/consulting and related industries. Major emphasis is placed on biological and chemical evaluation of man's impact on his environment.

Course work includes general education, computer applications, biology, chemistry, industrial safety, and an extensive array of detailed environmentally specific classes.

Graduates should qualify for numerous positions within the industry. Employment opportunities include, but are not limited to, the following: Chemical Analysis, Biological Analysis, Water/Wastewater Treatment, EPA Compliance Inspection, Hazardous Material Handling, Waste Abatement/ Removal, and Contaminated Site Assessment/Remediation.

Semester Hour Credits

I. General Education Courses

ENG 111	Expository Writing	3
ENG 114	Professional Research/Reporting	3
Humanities/ Fine Arts Elective		3
MAT 151	Statistics I	3
MAT 151A	Statistics I Lab	1
Social/Behavioral Sciences Elective		3

II. Major Courses

BIO 111	General Biology I	4
CHM 131	Introduction to Chemistry	3
CHM 131A	Introduction to Chemistry Lab	1
CHM 132	Organic and Biochemistry	4
CIS 111	Basic PC Literacy	2
COE 112	Co-op Work Experience I	1
COE 115	Work Experience Seminar I	1
ENV 110	Environmental Science	3
ENV 120	Earth Science	4
ENV 210	Management of Waste	4
ENV 212	Instrumentation	4
ENV 214	Water Quality	4
ENV 218	Environmental Health	3
ENV 222	Air Quality	4
ENV 226	Environmental Law	3
ISC 112	Industrial Safety	2
WAT 110	Basic Wastewater Treatment	3

Total Credits 66

FALL SEMESTER I	FALL SEMESTER II
BIO 111	ENV 210
CHM 131	ENV 212
CHM 131A	ENV 218
CIS 111	ISC 112
ENG 111	MAT 151
ENV 110	MAT 151A

SPRING SEMESTER I	SPRING SEMESTER II
CHM 132	COE 112
COM 231 or	COE 115
Humanities/ Fine Arts Elective	ENV 214
ENG 114	ENV 222
ENV 120	ENV 226
Soc./Behav. Sci. Elective	WAT 110

Heavy Equipment and Transport Technology/ Marine Systems Concentration

Marine Systems is a concentration under the curriculum title of Heavy Equipment and Transport Technology. This curriculum provides training for individuals interested in becoming technicians which service and maintain the propulsion systems of boats and other types of marine and industrial equipment.

The course work includes the maintenance and repair procedures of mechanical, electrical, hydraulics equipment used on marine systems. Students will inspect and test equipment to determine the cause of faulty operation, and then repair and replace defective parts.

Graduates of the curriculum should qualify as marine technicians which may be employed in marinas, shipyards, industrial and trucking industries.

		Semester Hour Credits
I. General Education Courses		
ENG 111	Expository Writing	3
ENG 114	Professional Research & Reporting	3
MAT 120	Geometry and Trigonometry	3
Humanities/Fine Arts Elective		3
Social/Behavioral Science Elective		3
II.Major Courses		
CIS 111	Basic PC Literacy	2
DIE 110	Diesel Engines	6
DIE 112	Diesel Electrical Systems	5
DIE 114	Power Trains	5
DIE 115	Electronic Engines	3
DIE 118	Mechanical Orientation	2
DIE 120	Introduction to Mobile Equipment	2
DIE 121	Marine Engines	4
DIE 125	Preventive Maintenance	2
DIE 128	Medium/Heavy Duty Tune Up	2
DIE 229	Brakes and Steering	2
DIE 134	Mechanical Fuel Injection	3
DIE 145	Marine Electricity	4
DIE 147	Marine Power Trains	4
HYD 112	Hydraulics/Medium/Heavy Duty	2
WLD 112	Basic Welding Processes	2
Total Credits:		**65**

FALL SEMESTER I
*DIE 110
DIE 118
**DIE 121
ENG 111

FALL SEMESTER II
DIE 114
*DIE 125
Humanities/Fine Arts Elect
HYD 112

SPRING SEMESTER I
CIS 111
ENG 114
DIE 112
DIE 120
**DIE 145

SPRING SEMESTER II
DIE 128
DIE 229
MAT 120
Social/Behav Science Elect

SUMMER SEMESTER I
DIE 115
DIE 134
**DIE 147
WLD 112

*CORE
**CONCENTRATION MARINE SYSTEMS

Hotel/Restaurant Management

The Hotel and Restaurant Management curriculum prepares students to understand and apply the administrative and practical skills needed for supervisory and managerial positions in hotels, motels, resorts, inns, restaurants, institutions, and clubs.

Course work includes front office management, food preparation, guest services, sanitation, menu writing, quality management, purchasing, and other areas critical to the success of hospitality professionals.

Upon completion graduates should qualify for supervisory or entry-level management positions in food and lodging including, front office, reservations, housekeeping, purchasing, dining room, and marketing. Opportunities are also available in the support areas of food and equipment sales.

		Semester Hour Credits
I. General Education Course		
COM 110	Intro Communication	3
ENG 111	Expository Writing	3
Humanities/Fine Arts Elective		3
MAT 115 or higher or 3 SHC Natural Science		3
Social/Behavioral Science Elective		3
II. Major Courses		
ACC 175	Hotel and Restaurant Accounting	4
COE 111	Co-op Work Experience	1
COE 121	Co-op Work Experience	1
CUL 110	Sanitation and Safety	2
CUL 110A	Sanitation and Safety Lab	1
CUL 120	Purchasing	2
CUL 120A	Purchasing Lab	1

CUL 125	Hospitality Information Systems	2
CUL 135	Food and Beverage Service	3
CUL 135A	Food and Beverage Service Lab	1
HRM 110	Introduction to Hospitality	2
HRM 140	Hospitality/Tourism Law	3
HRM 210	Meetings and Conventions	3
HRM 215	Restaurant Management	3
HRM 215A	Restaurant Management Lab	1
HRM 220	Food and Beverage Control	3
HRM 220A	Food and Beverage Control Lab	1
HRM 240	Hospitality Marketing	3
HRM 245	Hospitality Human Resource Management	3
HRM 280	Hospitality Management Problems	3

Students must take at least 6 SHC from among the following:

BUS 280	R.E.A.L. Small Business	4
CUL 130	Menu	2
CUL 140	Food Preparation I	6
CUL 214	Wine Appreciation	2
CUL 220	Food Service for Special Operations	5
CUL 240	Food Preparation II	5
HRM 115	Housekeeping	3
HRM 115A	Housekeeping Lab	1
HRM 120	Front Office Procedures	3
HRM 120A	Front Office Procedures Lab	1
HRM 125	Hospitality Etiquette	1
HRM 135	Facilities Management	2
HRM 145	Hospitality Supervision	3
HRM 150	Hospitality Training	3
HRM 225	Beverage Management	2
HRM 230	Club and Resort Management	2
NUT 110	Nutrition	3

Total Credits 67/68

FALL SEMESTER I
CUL 110
CUL 110A
CUL 125
ENG 111
HRM 110
HRM 140
Social/Behav Science Elect.

SPRING SEMESTER I
COM 110
CUL 135
CUL 135A
CUL 140
or
HRM 120
and
HRM 120A
HRM 245
MAT 115 or higher

FALL SEMESTER II
ACC 175
COE 111
CUL 120
CUL 120A
HRM 220
HRM 220A
HRM 240
Humanities/Fine Arts Elect

SPRING SEMESTER II
COE 121
HRM 210
HRM 215
HRM 215A
HRM 280
HRM Approved Elective
HRM Approved Elective
(HRM Approv. Elect. Lab)

Instrumentation

Instrumentation is a concentration under the curriculum title of Electronics Engineering Technology. This curriculum prepares individuals for positions in the process control field. This curriculum develops the knowledge of measuring and controlling devices and the technical skills involved in the application of instrument control to processes, systems and operations.

Course work includes training in production control, and process variables such as temperature, pressure, flow, level, humidity, density and viscosity. Students will gain a fundamental knowledge of mechanics, electronics, pneumatics, programmable logic controllers, and the manufacturing processes.

Graduates of the curriculum are employed as instrumentation technicians which install, calibrate, and maintain sensing, telemetering, and recording instrumentation and circuitry. Other duties may include devising, setting up, and operating instrumentation equipment involved in testing mechanical, structural, or electrical equipment.

Basic computer skills are necessary for the successful completion of this curriculum. Students entering this program should have basic computer skills.

Semester Hour Credits

I. General Education Courses

Elective - Humanities/Fine Arts		3
Elective - Social/Behavioral Science		3
ENG 111	Expository Writing	3
ENG 114	Professional Research & Reporting	3
MAT 121	Algebra/Trig I	3

II. Major Courses

CSC 133	C Programming	4
ELC 128	Introduction to PLC's	3
ELC 131	AC/DC Circuit Analysis	5
ELN 131	Electronic Devices	4
ELN 132	Linear Circuits and Applications	4
ELN 133	Digital Electronics	4
ELN 231	Industrial Controls	3
ELN 232	Introduction to Microprocessors	4
HYD 110	Hydraulics/Pneumatics I	3
MAT 122	Algebra/Trig II	3
PCI 161	Introduction to Instrumentation	1
PCI 162	Instrumentation Controls	3
PCI 261	Process Measurement	3
PCI 262	Introduction to Process Controls	4
PCI 263	Advanced Process Controls	4
PCI 264	Process Controls with PLC's	4
PHY 131	Physics/Mechanics	4

Select 2 SHC from the following courses:

ELC 135	Electrical Machines I	3
ELN 275	Troubleshooting	2
COE 111	Co-Op Work Experience 1	1
COE 121	Co-Op Work Experience 2	1

Total Hours: 75

FALL SEMESTER I	FALL SEMESTER II
ELC 131	ELC 128
ENG 111	ELN 232
HUM 110	HYD 110
MAT 121	PCI 261
PCI 161	PCI 262

SPRING SEMESTER I	SPRING SEMESTER II
CSC 133	ELN 231
ELN 131	PCI 263
ENG 114	PCI 264
MAT 122	PHY 131
PCI 162	PSY 118

SUMMER SEMESTER I
ELN 132
ELN 133

Interior Design

The Interior Design curriculum is designed to prepare students for a variety of job opportunities in the field of both residential and non-residential interior design. The focus of the studies is technical knowledge, professional practices, and aesthetic principles.

Curriculum content includes residential and non-residential interior design, architectural drafting, computer aided design, and universal design. Also included are basic design, history of interiors and furnishings, color theory, products, business practices, graphic presentations, and general education courses.

Graduates should qualify for a variety of jobs including residential and commercial interior design, set design, showroom design, and sales positions for furniture, textiles and accessories, and all business dealing with interiors.

Semester Hour Credits

I. General Education Courses

ART 131	Drawing I	3
Behavioral/Social Science Elective		3
ENG 111	Expository Writing	3
ENG 114	Professional Research & Reporting	3
MAT 115 or higher or 3 SHC Natural Science		3

II. Major Courses

DES 110	Architectural Graphics	2
DES 111	Creative Problem Solving	2
DES 120	CAD for Interior Design	2
DES 125	Graphic Presentation I	2
DES 135	Principles and Elem. of Design I	4
DES 136	Principles and Elem. of Design I	4
DES 210	Business Practices/Interior Design	2
DES 220	Introduction to Interior Design	3
DES 225	Textiles/Fabrics	3
DES 230	Residential Design I	3
DES 231	Residential Design II	3
DES 235	Products	3
DES 240	Non-Residential Design I	3
DES 241	Non-Residential Design II	3
DES 255	History of Interiors and Furnishings I	3
DES 285	Capstone/Interior Design	4

Students must take at least 3 SHC from among the following:

CIS 111	Basic PC Literacy	2
COE 111	Co-op Work Experience I	1
COE 121	Co-op Work Experience II	1
COE 131	Co-op Work Experience III	1
DES 245	Sales and Marketing for Interior Design	2
DES 280	Codes & Standards for Interior Design	3

Total Credits 64

FALL SEMESTER I	FALL SEMESTER II
ART 131	Behav/Soc. Science Elect.
DES 110	DES 111
DES 135	DES 230
DES 225	DES 235
MAT 115 or higher or Nat. Sci	DES 240
	DES 255
SPRING SEMESTER I	ENG 114
DES 120	
DES 125	**SPRING SEMESTER II**
DES 136	DES 210
DES 220	DES 231
ENG 111	DES 241
	DES 285

Machining Technology

The Machining Technology curriculum is designed to develop skills in the theory and safe use of hand tools, power machinery, computerized equipment and sophisticated precision inspection instruments.

Students will learn to interpret blueprints, set up manual and CNC machines, perform basic and advanced machining operations and make decisions to insure that work quality is maintained.

Employment opportunities for machining technicians exist in manufacturing industries, public institutions, governmental agencies and in a wide range of specialty machining job shops.

Semester Hour Credits

I. General Education Courses

ENG 111	Expository Writing	3
ENG 115	Oral Communication	3
HUM 110	Technology and Society	3
MAT 120	Geometry and Trigonometry	3
PSY 118	Interpersonal Psychology	3

II. Major Courses

CIS 111	Basic PC Literacy	2
MAC 111	Machining Technology I	6
MAC 112	Machining Technology II	6
MAC 113	Machining Technology III	6
MAC 122	CNC Turning	2
MAC 124	CNC Milling	2
MAC 131	Blueprint Reading: MACH I	2
MAC 132	Blueprint Reading: MACH II	2
MAC 152	Advanced Machining Calculations	2
MAC 153	Compound Angles	2
MAC 214	Machining Technology IV	6
MAC 224	Advanced CNC Milling	2
MAC 222	Advanced CNC Turning	2
MAC 241	Jigs and Fixtures I	4
MAC 242	Jigs and Fixtures II	4
MEC 172	Introduction to Metallurgy	3
MEC 231	Computer Aided Manufacturing I	3
MEC 232	Computer Aided Manufacturing II	3

Total Credits 74

FALL SEMESTER I
CIS 111
HUM 110
MAC 111
MAC 124
MAC 131

FALL SEMESTER II
MAC 113
MAC 153
MAC 222
MAC 241
PSY 118

SPRING SEMESTER I
ENG 111
MAC 112
MAC 122
MAC 132
MAT 120

SPRING SEMESTER II
ENG 115
MAC 214
MAC 242
MEC 232

SUMMER SEMESTER I
MAC 152
MAC 224
MEC 172
MEC 231

Marine Technology

This curriculum is designed to provide the practical and academic skills essential for success in marine scientific support. Students will receive training in observational and measurement techniques aboard a variety of vessels including the college's own ocean-going research vessel.

Course work includes a unique blend of traditional and contemporary vocational, technical and scientific marine education. Students are trained in the use of physical, chemical, meteorological, biological, and geological oceanographic instrumentation and sampling equipment.

Graduates should qualify for entry level field or laboratory positions with industries, state and federal agencies, and educational facilities associated with marine science and research. Career opportunities include oceanography, environmental science, marine biology, geophysical exploration, and fisheries-related employment.

Semester Hour Credits

I. General Education Courses

Humanities / Fine Arts Elective		3
Social/ Behavioral Science Elective		3
ENG 111	Expository Writing	3
ENG 114	Professional Research and Reporting	3
MAT 121	Algebra/ Trigonometry I	3

II. Major Courses

CIS 111	Basic PC Literacy	2
ELN 114	Marine Electronics	2
MSC 110	Training Cruise I	1
MSC 112	Training Cruise II	1
MSC 114	Training Cruise III	1
MSC 122	Boat Handling/ Seamanship	3
MSC 124	Industrial Skills	3
MSC 126	Marine Engines	2
MSC 132	Fishing Gear Technology I	3
MSC 134	Fishing Gear Technology II	2
MSC 150	Navigation	3
MSC 152	Marine Instrumentation	2
MSC 162	Oceanography I	3
MSC 164	Oceanography II	2
MSC 172	Marine Biology	3
MSC 174	Marine Invertebrate Zoology	4
MSC 182	Water Analysis I	2
MSC 216	Training Cruise IV	1
MSC 218	Training Cruise V	1
MSC 254	Marine Data Processing	2
MSC 256	Cartography/ Hydrographic Surveying	2
MSC 276	Marine Vertebrate Zoology	4
MSC 282	Water Analysis II	2
HEA 112	First Aid & CPR	2
MSC 154	Marine Photography	3
MSC 258	Multimedia Presentations	1

Total Credits 72

FALL SEMESTER I
HEA 112
MAT 121
MSC 110
MSC 122
MSC 132
MSC 162
MSC 172

FALL SEMESTER II
CIS 111
Humanities/ Fine Arts Elect
MSC 174
MSC 216
MSC 258
Social/ Behav Science Elect

SPRING SEMESTER I
ENG 111
MSC 112
MSC 124
MSC 150
MSC 154
MSC 276

SPRING SEMESTER II
ELN 114
ENG 114
MSC 218
MSC 254
MSC 256
MSC 282

SUMMER SEMESTER I
MSC 114
MSC 126
MSC 134
MSC 152
MSC 164
MSC 182

Mechanical Engineering Technology

The Mechanical Engineering Technology curriculum prepares graduates for employment as mechanical technicians. Typical assignments would include assisting in the design, development, testing and repair of mechanical equipment. Emphasis is placed on the integration of theory and mechanical principles.

Coursework includes applied mechanics, manufacturing methods and processes, computer usage, computer-aided drafting, mathematics, physics, and oral and written communications. The courses will stress critical thinking, planning, and problem solving.

Graduates of the curriculum will find employment opportunities in the diversified branches of the mechanical field. Mechanical engineering technicians are employed in many types of manufacturing, fabrication, research and development, and service industries.

		Semester Hour Credits
I. General Education Course		
Humanities/Fine Arts Elective		3
ENG 111	Expository Writing	3
ENG 115	Oral Communication	3
MAT 121	Algebra/Trigonometry I	3
SOC 210	Introduction to Sociology	3
II. Major Courses		
ATR 112	Introduction to Automation	3
CIS 111	Basic PC Literacy	2
CSC 133	"C" Programming	3
DFT 111	Technical Drafting I	4
DFT 151	CAD I	3
DFT 152	CAD II	3
DFT 211	Gears, Cams, & Pulleys	2
EGR 285	Design Project	2
ELC 112	DC/AC Electricity	5
HYD 110	Hydraulics/Pneumatics I	3
ISC 112	Industrial Safety	2
ISC 226	Facilities Design	4
MAT 122	Algebra/Trigonometry II	3
MEC 110	Introduction to CAD/CAM	3
MEC 145	Manufacturing Materials I	3
MEC 161	Manufacturing Processes I	3
MEC 161A	Manufacturing Processes I Lab	1
MEC 172	Introduction to Metallurgy	3
MEC 250	Statics and Strength	5
PHY 131	Physics/Mechanics	4
Total Credits		**76**

FALL SEMESTER I
CIS 111
DFT 111
ENG 111
ISC 112
MAT 121

FALL SEMESTER II
DFT 211
ELC 112
HYD 110
MEC 110
MEC 250

SPRING SEMESTER I
DFT 151
ENG 115
MAT 122
MEC 145
MEC 161
MEC 161A

SPRING SEMESTER II
CSC 133
EGR 285
Humanities/Fine Arts Elect
ISC 226
SOC 210

SUMMER SEMESTER I
ATR 112
DFT 152
MEC 172
PHY 131

Office Systems Technology

The Office Systems Technology curriculum prepares individuals for positions in administrative support careers. It equips office professionals to respond to the demands of a dynamic computerized workplace.

Students will complete courses designed to develop proficiency in the use of integrated software, oral and written communication, analysis and coordination of office duties and systems, and other support topics. Emphasis is placed on non-technical as well as technical skills.

Graduates should qualify for employment in a variety of positions in business, government, and industry. Job classifications range from entry-level to supervisor to middle management.

Semester Hour Credits

I. General Education Course

ENG 111	Expository Writing	3
ENG 114	Professional Research & Reporting	3
Humanities/Fine Arts Elective		3
Social/Behavioral Science Elective		3
MAT 115 or higher or 3 SHC Natural Science		3

II. Major Courses

ACC 120	Principles of Accounting I	4
BUS 121	Business Math	3
BUS 270	Professional Development	3
CIS 111	Basic PC Literacy	2
CIS 120	Spreadsheet I	3
CIS 152	Database Concepts and Applications	3
ECO 151	Survey of Economics	3
OST 131	Keyboarding	2
OST 132	Keyboard Skill Building	2
OST 134	Text Entry and Formatting	4
OST 136	Word Processing	3
OST 164	Text Editing Applications	3
OST 184	Records Management	2
OST 223	Machine Transcription I	2
OST 233	Office Publications Design	3
OST 236	Advanced Word/Information Processing	3
OST 289	Office Systems Management	3

Students must take at least 3 SHC from among the following:

BUS 137	Principles of Management	3
BUS 240	Business Ethics	3
BUS 280	R.E.A.L. Small Business	4
COE 111	Co-op Work Experience I	1
COE 121	Co-op Work Experience II	1
COE 131	Co-op Work Experience III	1

Total Credits 65

FALL SEMESTER I
BUS 121
BUS 270
CIS 111
ENG 111
OST 131

SPRING SEMESTER I
ENG 114
Humanities/Fine Arts Elect.
OST 134
OST 136
OST 164
MAT 115 or higher or Nat. Sci

FALL SEMESTER II
ACC 120
CIS 152
ECO 151
OST 223
OST 236
Social/Behav Science Elect

SPRING SEMESTER II
Business Elective
CIS 120
OST 132
OST 184
OST 233
OST 289

Paralegal Technology

The Paralegal Technology curriculum prepares individuals to work under the supervision of attorneys by performing routine legal tasks, and assisting with substantive legal work. A paralegal /legal assistant may not practice law, give legal advice, or represent clients in a court of law.

Course work includes substantive and procedural legal knowledge in the areas of civil litigation, legal research and writing, real estate, family law, wills, estates, trusts, and commercial law. Required courses also include subjects such as English, mathematics, and computer utilization.

Graduates are trained to assist attorneys in probate work, investigations, public records search, drafting and filing legal documents, research, and office management. Employment opportunities are available in private law firms, governmental agencies, banks, insurance agencies, and other business organizations.

Semester Hour Credits

I. General Education Courses

COM 231	Public Speaking	3
ENG 111	Expository Writing	3
Humanities/Fine Art Elective		3
MAT 115 or Higher		3
POL 130	State and Local Government	3

II. Major Courses

ACC 120	Principal of Accounting I	4
ACC 131	Federal Income Tax	3
CIS 111	Basic PC Literacy	2
CJC 231	Constitutional Law	3
LEX 110	Introduction to Paralegal Study	2
LEX 120	Legal Research/Writing I	3
LEX 121	Legal Research/Writing II	3
LEX 130	Civil Injuries	2
LEX 140	Civil Litigation I	3
LEX 150	Commercial Law	3
LEX 160	Criminal Law and Procedure	3
LEX 170	Administrative Law	2

LEX 210	Real Property I	2
LEX 211	Property II	3
LEX 214	Investigation & Trial Prep	3
LEX 220	Corporation Law	2
LEX 240	Family Law	2
LEX 250	Wills Estates & Trust	3
LEX 260	Bankruptcy & Collections	2
LEX 270	Law Office Management & Tech.	2
LEX 280	Ethic & Professionalism	2
OST 136	Word Processing	2

Total Credits: 71

PARALEGAL TECHNOLOGY (DAY)

FALL SEMESTER I
CIS 111
ENG 111
LEX 110
LEX 130
LEX 150
MAT 115

FALL SEMESTER II
Humanities/Fine Arts Elect
LEX 210
LEX 214
LEX 240
LEX 260
LEX 270

SPRING SEMESTER I
ACC 120
LEX 120
LEX 140
LEX 160
LEX 220
POL 130

SPRING SEMESTER II
ACC 131
COM 231
LEX 211
LEX 250
LEX 280

SUMMER SEMESTER I
CJC 231
LEX 121
LEX 170
OST 136

PARALEGAL TECHNOLOGY (NIGHT)

FALL SEMESTER I
ENG 111
LEX 110

SPRING SEMESTER I
LEX 130
LEX 150

SUMMER SEMESTER I
CIS 111
MAT 115

FALL SEMESTER II
LEX 120
LEX 140

SPRING SEMESTER II
LEX 160
POL 130

SUMMER SEMESTER II
ACC 120
LEX 220

FALL SEMESTER III
LEX 121
LEX 170

SPRING SEMESTER III
OST 136
CJC 231

SUMMER SEMESTER III
LEX 210
LEX 240
LEX 260

FALL SEMESTER IV
Humanities/Fine Arts Elect
LEX 270

SPRING SEMESTER IV
COM 231
LEX 211

SUMMER SEMESTER IV
LEX 214
LEX 280

FALL SEMESTER V
ACC 131
LEX 250

*A new first year class will commence in the Fall Semester of each odd numbered year.

Radiography

The Radiography curriculum prepares the graduate to be a radiographer, a skilled health care professional who uses radiation to produce images of the human body.

Course work includes clinical rotations to area health care facilities, radiographic exposure, image processing, radiographic procedures, physics, pathology, patient care and management, radiation protection, quality assurance, anatomy and physiology, and radiobiology.

Graduates of accredited programs are eligible to apply to take the American Registry of Radiologic Technologists' national examination for certification and registration as medical radiographers. Graduates may be employed in hospitals, clinics, physicians' offices, medical laboratories, government agencies, and industry.

		Semester Hour Credits
I. General Education Courses		
BIO 168	Anatomy & Physiology I	4
BIO 169	Anatomy & Physiology II	4
ENG 111	Expository Writing	3

ENG 114 Professional Research & Reporting 3
Humanities Elective 3
PSY 150 General Psychology 3

II. Major Courses
RAD 110 Rad Intro & Patient Care 3
RAD 111 Rad Procedures I 4
RAD 112 Rad Procedures II 4
RAD 121 Radiographic Imaging I 3
RAD 122 Radiographic Imaging II 2
RAD 131 Radiographic Physics I 2
RAD 151 RAD Clinical Ed I 2
RAD 161 RAD Clinical Ed II 5
RAD 171 RAD Clinical Ed III 4
RAD 211 Rad Procedures III 3
RAD 231 Radiographic Physics II 2
RAD 241 Radiation Protection 2
RAD 245 Radiographic Analysis 3
RAD 251 RAD Clinical Ed IV 7
RAD 261 RAD Clinical Ed V 7

III. Other Major Courses .....
CIS 111 Basic PC Literacy 2

Total Credits 75

FALL SEMESTER I	FALL SEMESTER II
BIO 168	ENG 114
ENG 111	RAD 211
RAD 110	RAD 231
RAD 111	RAD 241
RAD 151	RAD 251

SPRING SEMESTER I	SPRING SEMESTER II
BIO 169	Humanities Elective
RAD 112	PSY 150
RAD 121	RAD 245
RAD 161	RAD 261

SUMMER SEMESTER I
CIS 111
RAD 122
RAD 131
RAD 171

Speech-Language Pathology Assistant

The Speech-Language Pathology Assisting curriculum prepares graduates to work under the supervision of a licensed Speech-Language Pathologist, who evaluates, diagnoses, and treats individuals with various communication disorders.

Courses provide instruction in methods of screening for speech, language, and hearing disorders and in following written protocols designed to remediate individual communication problems. Supervised field experiences include working with patients of various ages and with various disorders.

Graduates may be eligible for registration with the North Carolina Board of Examiners for Speech-Language Pathologists and Audiologists and must be supervised by a licensed Speech-Language Pathologist. They may be employed in healthcare or education settings.

Semester Hour Credits

I. General Education Courses
ENG 111 Expository Writing 3
ENG 114 Professional Research & Reporting 3
Humanities/Fine Arts Elec 3
MAT 115 or higher or 3 SHC Natural Science 3
PSY 150 General Psychology 3

II. Major Courses
BIO 163 Anatomy & Physiology 5
PSY 255 Intro to Exceptionality 3
PSY 265 Behavior Modifications 3
SLP 111 Intro Speech & Language Pathology 3
SLP 112 SLP Anatomy & Physiology 3
SLP 120 SLP Administrative Office Proc 3
SLP 130 Phonics/Speech Patterns 3
SLP 140 Normal Communications 3
SLP 211 Disorders & Treatment I 4
SLP 212 Disorders & Treatment II 5
SLP 220 Assistive Technology 2
SLP 230 SLP Fieldwork 4
SLP 231 SLP Fieldwork Seminar 3

III. Other Major Courses
CIS 111 Basic PC Literacy 2
COM 110 Intro To Communication 3
PSY 241 Developmental Psychology 3

Total Credits 67

FALL SEMESTER I	FALL SEMESTER II
BIO 163	MAT 115
ENG 111	PSY 255
PSY 150	SLP 212
SLP 111	SLP 220
SLP 120	

SPRING SEMESTER I	SPRING SEMESTER II
COM 110	PSY 265
PSY 241	SLP 230
SLP 112	SLP 231
SLP 130	
SLP 140	

SUMMER SEMESTER I
CIS 111
ENG 114
SLP 211

DIPLOMA PROGRAMS

Air Conditioning, Heating, and Refrigeration Technology

The Air Conditioning, Heating, and Refrigeration Technology curriculum provides the basic knowledge to develop skills necessary to work with residential and light commercial systems.

Topics include mechanical refrigeration, heating and cooling theory, electricity, controls, and safety. The diploma program covers air conditioning, furnaces, heat pumps, tools, and instruments.

Diploma graduates should be able to assist in the start-up, preventive maintenance, service, repair, and/or installation of residential and light commercial systems.

		Semester Hour Credits
I. General Education Courses		
ENG 101	Applied Communications I	3
MAT 101	Applied Mathematics I	3
II. Major Courses		
AHR 110	Introduction to Refrigeration	5
AHR 112	Heating Technology	4
AHR 113	Comfort Cooling	4
AHR 114	Heat Pump Technology	4
AHR 115	Refrigeration Systems	2
AHR 130	HVAC Controls	3
AHR 133	HVAC Servicing	4
AHR 140	All-Weather Systems	2
AHR 151	HVAC Duct Systems I	2
AHR 160	Refrigerant Certification	1
AHR 211	Residential System Design	3
ELC 111	Introduction to Electricity	3
III. Other Required Courses		
BUS 230	Small Business Management	3
Total Credits:		**46**

FALL SEMESTER I
AHR 110
AHR 112
AHR 151
ELC 111
MAT 101

SUMMER SEMESTER I
AHR 114
AHR 140
AHR 211
BUS 230

SPRING SEMESTER I
AHR 113
AHR 115
AHR 130
AHR 133
AHR 160
ENG 101

Autobody Repair

The Autobody Repair curriculum provides training in the use of equipment and materials of the autobody repair trade. The student studies the construction of the automobile body and techniques of autobody repairing, rebuilding, and refinishing.

The course work includes autobody fundamentals, industry overview, and safety. Students will perform hands-on repairs in the areas of non-structural and structural repairs, mig welding, plastics and adhesives, refinishing, and other related areas.

Graduates of the curriculum should qualify for entry-level employment opportunities in the automotive body and refinishing industry. Graduates may find employment with franchised, independent garages, or they may become self-employed.

		Semester Hour Credits
I. General Education Courses		
ENG 101	Applied Communications I	3
MAT 101	Applied Mathematics I	3
II. Major Courses		
AUB 111	Painting and Refinishing I	4
AUB 112	Painting and Refinishing II	4
AUB 114	Special Finishes	2
AUB 121	Non-Structural Damage I	3
AUB 122	Non-Structural Damage II	4
AUB 131	Structural Damage I	4
AUB 132	Structural Damage II	4
AUB 134	Auto Body MIG Welding	3
AUB 136	Plastics and Adhesives	3
AUB 150	Automotive Detailing	2
AUB 160	Body Shop Operations	1
AUB 162	Autobody Estimating	2
AUT 171	Heating & Air Conditioning	3
CIS 111	Basic PC Literacy	2
Total Credits:		**47**

FALL SEMESTER I
AUB 111
AUB 121
AUB 131
AUB 134
CIS 111
MAT 101

SUMMER SEMESTER I
AUB 114
AUB 150
AUB 160
AUB 162
AUT 171

SPRING SEMESTER I
AUB 112
AUB 122
AUB 132
AUB 136
ENG 101

Boat Building

The Boat Building program prepares individuals for employment in the boat manufacturing and repair industry. Today's boat builders are skilled craftspeople who can create complex shapes out of a wide variety of materials.

Course work includes reading marine blueprints, lofting, constructing bird cages, building forms, and the safe and proper use of hand and power tools. Wood and composite boat building, production moldmaking, and interior cabinetry and joinery are also covered.

Graduates may find employment with yacht manufacturer's or with other companies needing wood furniture or moldings fabricated and installed. Other employment opportunities can be found in the fiberglass industry and in boat maintenance and repair yards.

Semester Hour Credits

I. General Education Courses
ENG 101 Applied Communications I 3
MAT 101 Applied Mathematics I 3

II. Major Courses
BTB 101 Boat Building I 10
BTB 102 Boat Building II 9
BTB 103 Yacht Joiner Practices I 4
BTB 104 Yacht Joiner Practices II 3
BTB 105 Yacht Repair/Renovation 5
DFT 100 Marine Drafting 2
FBG 100 Fiberglass Mold Making 5
Total Credits: 44

FALL SEMESTER I
BTB 101
DFT 100
MAT 101

SUMMER SEMESTER I
BTB 104
BTB 105
FBG 100

SPRING SEMESTER I
BTB 102
BTB 103
ENG 101

Carpentry

The Carpentry curriculum is designed to train students to construct residential structures using standard building materials and hand and power tools. Carpentry skills and a general knowledge of residential construction will also be taught.

Course work includes footings and foundations, framing, interior and exterior trim, cabinetry, blueprint reading, residential planning and estimating, and other related topics. Students will develop skills through hands-on participation.

Graduates should qualify for employment in the residential building construction field as rough carpenters, framing carpenters, roofers, maintenance carpenters and other related job titles.

Semester Hour Credits

I. General Education Courses
ENG 101 Applied Communications I 3
MAT 101 Applied Mathematics I 3

II. Major Courses

BPR 130 Blueprint Reading/Construction 2
CAR 111 Carpentry I 9
CAR 112 Carpentry II 9
CAR 113 Carpentry III 6
CAR 114 Residential Building Codes 3
CAR 115 Residential Planning/Estimating 3

Total Credits: 38

FALL SEMESTER I
CAR 111
BPR 130
MAT 101

SUMMER SEMESTER I
CAR 113
CAR 114

SPRING SEMESTER I
CAR 112
CAR 115
ENG 101

Cosmetology

The Cosmetology curriculum is designed to provide competency-based knowledge, scientific/artistic principles, and hands-on fundamentals associated with the cosmetology industry. The curriculum provides a simulated salon environment which enables students to develop manipulative skills.

Course work includes instruction in all phases of professional imaging, hair design, chemical processes, skin care, nail care, multi-cultural practices, business/computer principles, product knowledge, and other selected topics.

Graduates should qualify to sit for the State Board of Cosmetic Arts examination. Upon successfully passing the State Board exam, graduates will be issued a license. Employment is available in beauty salons and as skin/nail specialists, platform artists, and related business.

The listed courses, CFCC Cosmetology competencies, NC State Board Performances and a minimum of 1500 hours are required for graduation.

This curriculum complies with the standard approved by the State Board of Community Colleges.

		Semester Hour Credits
I. General Education Courses		
ENG 101	Applied Communications	3
PSY 118	Interpersonal Psychology	3
II. Major Courses		
COS 111	Cosmetology Concepts I	4
COS 112	Salon I	8
COS 113	Cosmetology Concepts II	4
COS 114	Salon II	8
COS 115	Cosmetology Concepts III	4
COS 116	Salon III	4
COS 117	Cosmetology Concepts IV	2
COS 118	Salon IV	7
Total Credits		**47**

FALL SEMESTER I	SUMMER SEMESTER I
COS 111	COS 115
COS 112	COS 116
ENG 101	
SPRING SEMESTER I	**FALL SEMESTER II**
COS 113	COS 117
COS 114	COS 118
PSY 118	

Dental Assisting

The Dental Assisting curriculum prepares individuals to assist the dentist in the delivery of dental treatment and to function as integral members of the dental team while performing chairside and related office and laboratory procedures.

Course work includes instruction in general studies, biomedical sciences, dental sciences, clinical sciences, and clinical practice. A combination of lecture, laboratory, and clinical experiences provide students with knowledge in infection/hazard control, radiography, dental materials, preventive dentistry, and clinical procedures.

Graduates may be eligible to take the Dental Assisting National Board Examination to become Certified Dental Assistants. As a Dental Assistant II, defined by the Dental Laws of North Carolina, graduates work in dental offices and other related areas.

		Semester Hour Credits
I. General Education Courses		
ENG 102	Applied Communications II	3
PSY 118	Interpersonal Psychology	3
II. Major Courses		
BIO 106	Anatomy/Physiology/Microbiology	3
DEN 101	Preclinical Procedures I	7
DEN 102	Dental Materials	5
DEN 103	Dental Sciences	2
DEN 104	Dental Health Education	3
DEN 105	Practice Management	2
DEN 106	Clinical Practice I	5
DEN 107	Clinical Practice II	5
DEN 110	Orofacial Anatomy	3
DEN 111	Infection/Hazard Control	2
DEN 112	Dental Radiology	3
III. Other Required Courses		
CIS 111	Basic PC Literacy	2
Total Credits		**48**

FALL SEMESTER I	SUMMER SEMESTER I
BIO 106	CIS 111
DEN 101	DEN 107
DEN 102	ENG 102
DEN 110	PSY 118
DEN 111	
SPRING SEMESTER I	
DEN 103	
DEN 104	
DEN 105	
DEN 106	
DEN 112	

Early Childhood

DIPLOMA PROGRAM

		Semester Hour Credits
I. General Education Courses		
ENG 111	Expository Writing	3
PSY 150	General Psychology	3
II. Major Courses		
COE 111	Cooperative Education I	1
COE 115	Work Experience Seminar	1
EDU 111	Early Childhood Credential I	2
EDU 112	Early Childhood Credential II	2
or		
EDU 113	Family Credential	2
EDU 131	Child, Family and Community	3
EDU 146	Child Guidance	3
EDU 221	Children with Special Needs	3
PSY 244	Child Development I	3
PSY 245	Child Development II	3
III. Other Major Courses		
EDU 153	Health, Safety and Nutrition	3
EDU 188	Early Childhood Issues	2
EDU 234	Infants, Toddlers and Twos	3
III. Other Required Courses		
CIS 111	Basic PC Literacy	2
Total Credits		**39**

FALL SEMESTER I
EDU 111
EDU 188
ENG 111
PSY 150

SPRING SEMESTER I
EDU 112
EDU 113
EDU 131
EDU 146
EDU 153
PSY 244

SUMMER SEMESTER
CIS 111

FALL SEMESTER II
EDU 234
PSY 245

SPRING SEMESTER II
COE 111
COE 115
EDU 221

Industrial Maintenance Technology

The Industrial Maintenance Technology curriculum is designed to prepare or upgrade individuals to service, maintain, repair, or install equipment for a wide range of industries. Instruction includes theory and skill training needed for inspecting, testing, troubleshooting, and diagnosing industrial equipment and physical facilities.

Students will learn technical skills in blueprint reading, electricity, hydraulics/pneumatics, machining, welding, and various maintenance procedures. Practical application in these industrial systems will be emphasized and additional advanced course work may be offered.

Upon completion of any of the various levels of this curriculum, graduates should gain the necessary practical skills and related technical information to qualify for employment or advancement in the various areas of industrial maintenance technology.

		Semester Hour Credits
I. General Education Courses		
ENG 101	Applied Communications I	3
MAT 101	Applied Mathematics I	3
II. Major Courses		
AHR 120	HVACR Maintenance	2
BPR 111	Blueprint Reading	2
BPR 121	Blueprint Reading: Mechanical	2
CIS 111	Basic PC Literacy	2
ELC 111	Introduction to Electricity	3
ELC 125	Diagrams and Schematics	2
HYD 110	Hydraulics/Pneumatics I	3
ISC 112	Industrial Safety	2
MEC 111	Machine Processes I	3
MEC 130	Mechanisms	3
MEC 131	Metal Working Processes	3
MNT 110	Introduction to Maintenance Procedures	2
MNT 111	Maintenance Practices	2
MNT 220	Rigging and Moving	2
MNT 230	Pumps and Piping Systems	2
PLU 111	Introduction to Basic Plumbing	2
WLD 112	Basic Welding Processes	2
Total Credits		**45**

FALL SEMESTER I
BPR 111
ELC 111
MAT 101
MEC 111
MEC 131
MNT 110
PLU 111

SPRING SEMESTER I
BPR 121
ENG 101
HYD 110
ISC 112
MEC 130
MNT 111
WLD 112

SUMMER SEMESTER I
AHR 120
CIS 111
ELC 125
MNT 220
MNT 230

Masonry

The Masonry curriculum is designed to prepare individuals to work in the construction industry as masons. Masonry courses provide principles and fundamentals of masonry and experiences necessary to produce quality construction using safe, practical, and reliable work habits.

Course work includes basic mathematics, blueprint reading, and methods used in laying out masonry jobs for residential, commercial, and industrial construction. Upon completion students will be able to read blueprints, estimate structures, construct footings and walks, and lay masonry units.

Upon completion students will be issued a certificate or diploma. Graduates should qualify for employment in the masonry industry as apprentices or masons.

		Semester Hour Credits
I. General Education Courses		
ENG 101	Applied Communications I	3
MAT 101	Applied Mathematics I	3
II. Major Courses		
BPR 130	Blueprint Reading/Construction	2
MAS 110	Masonry I	10
MAS 120	Masonry II	10
MAS 130	Masonry III	8
Total Credits:		**36**

FALL SEMESTER I
BPR 130
MAS 110
MAT 101

SUMMER SEMESTER I
MAS 130

SPRING SEMESTER I
ENG 101
MAS 120

Medical Transcription

The Medical Transcription curriculum prepares individuals to become medical language specialists who interpret and transcribe dictation by physicians and other healthcare professionals in order to document patient care and facilitate delivery of healthcare services.

Students will gain extensive knowledge of medical terminology, pharmacology, human diseases, diagnostic studies, surgical procedures, and laboratory procedures. In addition to work processing skill and knowledge of voice processing equipment, students must master English grammar, spelling, and proofreading.

Graduates should qualify for employment in hospitals, medical clinics, doctors' offices, private transcription businesses, research facilities, insurance companies, and publishing companies. After acquiring work experience, individuals can apply to the American Association for Medical Transcription to become Certified Medical Transcriptionists.

		Semester Hour Credits
I. General Education Course		
ENG 111	Expository Writing	3
ENG 114	Professional Research & Reporting	3
II. Major Courses		
BIO 106	Anatomy/Physiology/Microbiology	3
CIS 111	Basic PC Literacy	2
MED 121	Medical Terminology I	3
MED 122	Medical Terminology II	3
OST 131	Keyboarding	2
OST 136	Word Processing	2
OST 149	Medical Legal Issues	2
OST 164	Text Editing Applications	3
OST 201	Medical Transcription I	4
OST 202	Medical Transcription II	4
OST 247	CPT Coding in the Medical Office	2
OST 248	Diagnostic Coding	2
Total Credits		**38**

FALL SEMESTER I
BIO 106
ENG 111
MED 121
OST 131
OST 136

SUMMER SEMESTER I
OST 149
OST 164
OST 202
OST 247

SPRING SEMESTER I
CIS 111
ENG 114
MED 122
OST 201
OST 248

Pharmacy Technology

The Pharmacy Technology curriculum prepares individuals to assist the pharmacist in duties that a technician can legally perform and to function within the boundaries prescribed by the pharmacist and the employment agency.

Graduates will maintain patient's records; fill prescriptions; maintain inventories; set up, package, and label medication doses; prepare solutions and intravenous additives; and perform clerical duties, including insurance forms and forms required by third-party payers.

Graduates may be employed in hospitals, nursing homes, private and chain drug stores, research laboratories, wholesale drug companies, and pharmaceutical manufacturing facilities. Graduates will qualify to take the National Certification Examination developed by the Pharmacy Technician Certification Board.

Semester Hour Credits

I. General Education Courses

BIO 106	Intro to Anat/Phys/Micro	3
ENG 102	Applied Communications II	3
PSY 118	Interpersonal Psychology	3

II. Major Courses

PHM 110	Intro to Pharmacy	3
PHM 111	Pharmacy Practice I	4
PHM 115	Pharmacy Calculations	3
PHM 115A	Pharmacy Calculations Lab	1
PHM 118	Sterile Products	4
PHM 120	Pharmacology I	3
PHM 125	Pharmacology II	3
PHM 132	Pharmacy Clinical	2
PHM 138	Pharmacy Clinical	8
PHM 140	Trends in Pharmacy	2

III. Other Major Courses

CIS 111	Basic PC Literacy	2
PHM 155	Community Pharmacy	3

Total Credits 47

FALL SEMESTER I
BIO 106
CIS 111
PHM 110
PHM 111
PHM 115
PHM 115A

SUMMER SEMESTER I
ENG 102
PHM 125
PHM 132
PHM 140
PHM 155

SPRING SEMESTER I
PHM 118
PHM 120
PHM 138
PSY 118

Practical Nursing

The Practical Nursing curriculum prepares individuals with the knowledge and skills to provide nursing care to children and adults.

Students will participate in assessment, planning, implementing, and evaluating nursing care.

Graduates are eligible to apply to take the National Council Licensure Examination (NCLEX-PN) which is required for practice as a Licensed Practical Nurse. Employment opportunities include hospitals, rehabilitation/long term care/home health facilities, clinics, and physicians' offices.

Semester Hour Credits

I. General Education Courses

BIO 106	Intro to Anat/Phys/Micro	3
ENG 111	Expository Writing	3
PSY 150	General Psychology	3
PSY 241	Developmental Psych	3

II. Major Courses

NUR 101	Practical Nursing I	11
NUR 102	Practical Nursing II	12
NUR 103	Practical Nursing III	10

III. Other Required Courses

CIS 111	Basic PC Literacy	2

Total Credits 47

FALL SEMESTER I
BIO 106
NUR 101
PSY 150

SUMMER SEMESTER I
CIS 111
NUR 103

SPRING SEMESTER I
ENG 111
NUR 102
PSY 241

Welding Technology

The Welding Technology curriculum provides students with a sound understanding of the science, technology, and applications essential for successful employment in the welding and metal industry.

Instruction includes consumable and non-consumable electrode welding and cutting processes. Courses in math, blueprint reading, metallurgy, welding inspection, and destructive and non-destructive testing provides the student with industry-standard skills developed through classroom training and practical application.

Successful graduates of the Welding Technology curriculum may be employed as entry level technicians in welding and metalworking industries. Career opportunities also exist in construction, manufacturing, fabrication, sales, quality control, supervision, and welding-related self-employment.

		Semester Hour Credits
I. General Education Courses		
ENG 101	Applied Communications I	3
MAT 101	Applied Mathematics I	3
II. Major Courses		
CIS 111	Basic PC Literacy	2
WLD 110	Cutting Processes	2
WLD 115	SMAW (Stick) Plate	5
WLD 116	SMAW (Stick) Plate/Pipe	4
WLD 121	GMAW (MIG) FCAW/Plate	4
WLD 131	GTAW (TIG) Plate	4
WLD 132	GTAW (TIG) Plate/Pipe	3
WLD 141	Symbols and Specifications	3
WLD 143	Welding Metallurgy	2
WLD 215	SMAW (Stick) Pipe	4
WLD 231	GTAW (TIG) Pipe	3
Total Credits:		**42**

FALL SEMESTER I
MAT 101
WLD 110
WLD 115
WLD 131
WLD 141

SUMMER SEMESTER I
WLD 215
WLD 231

SPRING SEMESTER I
CIS 111
ENG 101
WLD 116
WLD 121
WLD 132
WLD 143

CERTIFICATE PROGRAMS

Air Conditioning, Heating, and Refrigeration Technology

CERTIFICATE PROGRAM
(EVENINGS)

FALL SEMESTER I
AHR 110

SPRING SEMESTER I
AHR 114 ELC 111

Basic Law Enforcement Training

The Basic Law Enforcement Training curriculum Certification Examination mandated by the North Carolina Criminal Justice Education and Training Standard Commission and/or it prepares individuals to take the Justice Officers Basic Training Certification Examination mandated by the North Carolina Sheriffs' Education and Training Standards Commission. Successful completion of the curriculum certificate program requires that the student satisfy the minimum requirements for certification by the Criminal Justice Commission and/or the Sheriff's Commission. The student satisfactorily completing this program should possess at least the minimum degree of general attributes, knowledge, and skills to function as an experienced law enforcement officer.

Job opportunities are available with state, county, and municipal governments in North Carolina. In addition, knowledge, skills, and abilities acquired in this course of study qualify one for job opportunities with private enterprises in such areas as industrial, retail, and private security.

CJC-100 - Law Enforcement Training
Prerequisite: None

This course is designed to provide the student with skills and knowledge necessary to perform those tasks essential to function in law enforcement. The course consists of 576 hours of instruction in the following topic areas:

(1)	Course Orientation	8 hours
(2)	Constitutional Law	4 hours
(3)	Laws Of Arrest, Search, and Seizure	16 hours
(4)	Mechanics of Arrest: Arrest Procedures	8 hours

(5)	Law Enforcement Communications and Information Systems	4 hours
(6)	Elements of Criminal Law	24 hours
(7)	Defensive Tactics	24 hours
(8)	Juvenile Law and Procedures	8 hours
(9)	First Responder	40 hours
(10)	Firearms	48 hours
(11)	Patrol Techniques	16 hours
(12)	Crime Prevention Techniques	4 hours
(13)	Field Notetaking and Report Writing	16 hours
(14)	Mechanics Of Arrest; Vehicle Stops	6 hours
(15)	Mechanics Of Arrest; Custody Procedures	2 hours
(16)	Mechanics Of Arrest; Processing Arrestee	4 hours
(17)	Crisis Management	12 hours
(18)	Special Populations	12 hours
(19)	Civil Disorders	8 hours
(20)	Criminal Investigations	32 hours
(21)	Interviews; Field and In-Custody	8 hours
(22)	Controlled Substances	6 hours
(23)	ABC Laws and Procedures	4 hours
(24)	Electrical and Hazardous Materials Emergencies	12 hours
(25)	Motor Vehicle Law	20 hours
(26)	Techniques of Traffic Law Enforcement	6 hours
(27)	Traffic Accident Investigation	20 hours
(28)	Law Enforcement Driver Training	44 hours
(29)	Preparing For and Testifying in Court	16 hours
(30)	Dealing With Victims And The Public	4 hours
(31)	Ethics of Professional Law Enforcement	6 hours
(32)	Physical Fitness	44 hours
(33)	Civil Process	24 hours
(34)	Supplemental Custody Procedures	8 hours
(35)	Testing	16 hours
(36)	Review	20 hours
(37)	Tactical Communication	8 hours
(38)	Human Resource Development	16 hours
Total:		**578 hours**

Total Credits 18

Autobody Repair

CERTIFICATE PROGRAM

FALL SEMESTER I	SPRING SEMESTER I
AUB 111	AUB 121
AUB 134	AUB 131

Electronics Engineering Technology

CERTIFICATE PROGRAM
(EVENINGS)

FALL SEMESTER I	SPRING SEMESTER I
EGR 131	ELC 135
ELC 131	ELN 131
MAT 121	

Information Systems

FALL SEMESTER I	SPRING SEMESTER I
CET 111	*CET 211
CIS 111	*CIS 152
CIS 130	NET 110

*Prerequisite required.

Machining Technology

CERTIFICATE PROGRAM
(DAY AND EVENINGS)

FALL SEMESTER I	SPRING SEMESTER I
MAC 111	MAC 112
MAC 124	MAC122

Phlebotomy

The Phlebotomy curriculum prepares individuals to obtain blood and other specimens for the purpose of laboratory analysis.

Course work includes proper specimen collection and handling, communication skills, and maintaining patient data.

Graduates may qualify for employment in hospitals, clinics, physician's offices, and other health care settings and may be eligible for national certification as phlebotomy technicians.

Semester Hour Credits

I. General Education Courses

II. Major Courses

PBT 100	Phlebotomy Technology	6
PBT 101	Phlebotomy Practicum	3
PSY 118	Interpersonal Psychology	3

Total Credits 12

Course work includes proper specimen collection and handling, communication skills, and maintaining patient data.

Graduates may qualify for employment in hospitals, clinics, physician's offices, and other health care settings and may be eligible for national certification as phlebotomy technicians.

		Semester Hour Credits
I. General Education Courses		
II. Major Courses		
PBT 100	Phlebotomy Technology	6
PBT 101	Phlebotomy Practicum	3
PSY 118	Interpersonal Psychology	3
Total Credits		**12**

Real Estate

The Real Estate curriculum provides the prelicensing education required by the North Carolina Real Estate Commission, prepares individuals to enter the profession, and offers additional education to meet professional development needs.

Course work includes the practices and principles of real estate, emphasizing financial and legal applications, property development, and property values.

Graduates should qualify for North Carolina Real Estate Sales and Broker examinations. They should be able to enter apprenticeship training and to provide real estate services to consumers in a competent manner.

		Semester Hour Credits
I. General Education Course		
II. Major Courses		
RLS 112	Real Estate Fundamentals	5
RLS 113	Real Estate Mathematics	2
RLS 114	Real Estate Brokerage	2
RLS 115	Real Estate Finance	2
RLS 116	Real Estate Law	2
Total Credits		**13**

Real Estate Appraisal

The Real Estate Appraisal curriculum is designed to prepare individuals to enter the appraisal profession as a registered trainee and advance to licensed or certified appraiser levels.

Course work includes appraisal theory and concepts with applications, the North Carolina Appraisers Act, North Carolina Appraisal Board rules, and the Uniform Standards of Professional Appraisal Practice.

Graduates should be prepared to complete the North Carolina Registered Trainee Examinations and advance to licensure or certification levels as requirements are met.

		Semester Hour Credits
I. General Education Course		
II. Major Courses		
REA 101	Intro. to Real Estate Appraisal R-1	2
REA 102	Valuation Principles & Practices R-2	2
REA 103	Applied Residential Property Valuation R-3	2
REA 201	Intro. to Income Property Appraisal G-1	2
REA 202	Advanced Income Capital. Proced G-2	2
REA 203	Applied Income Property Valuation G-3	2
Total Credits		**12**

Truck Driver Training

The Truck Driver Training curriculum prepares individuals to drive tractor trailer rigs. This program teaches proper driving procedures, safe driver responsibility, commercial motor vehicle laws and regulations, and the basic principles and practices for operating commercial vehicles.

The course work includes motor vehicle laws and regulations, map reading, vehicle maintenance, safety procedures, daily logs, defensive driving, freight handling, security, and fire protection. Highway driving, training range exercises, and classroom lectures are used to develop the student's knowledge and skills.

Graduates of the curriculum are qualified to take the Commercial Driver's License and employable by commercial trucking firms. They may also become owner-operators and work as private contract haulers.

		Semester Hour Credits
I. General Education Courses		
II. Major Courses		
TRP 100	Truck Driver Training	12
Total Credits:		**12**

Welding

CERTIFICATE PROGRAM
(EVENINGS)

FALL SEMESTER I	SPRING SEMESTER I
WLD 110	WLD 116
WLD 115	WLD 131

COURSE DESCRIPTIONS

Class Lab Credit Clinical

ACC 120 Prin Of Accounting I 3 2 4
Prerequisites
Corequisites: None

This course introduces the basic principles and procedures of accounting. Emphasis is placed on collecting, summarizing, analyzing, and reporting financial information. Upon completion, students should be able to analyze data and prepare journal entries and reports as they relate to the accounting cycle.

ACC 121 Prin of Accounting II 3 2 4
Prerequisites: ACC 120
Corequisites: None

This course is a continuation of ACC 120. Emphasis is placed on corporate and managerial accounting for both external and internal reporting and decision making. Upon completion, students should be able to analyze and record corporate transactions, prepare financial statements and reports, and interpret them for management.

ACC 131 Federal Income Taxes 2 2 3
Prerequisites:
Corequisites: None

This course provides an overview of federal income taxes for individuals, partnerships, and corporations. Emphasis is placed on the application of the Internal Revenue Code to preparation of tax returns for individuals, partnerships, and corporations. Upon completion, students should be able to complete federal tax returns for individuals, partnerships, and corporations.

ACC 150 Computer Gen Ledger 1 2 2
Prerequisites: ACC 115 or ACC 120
Corequisites: None

This course introduces microcomputer applications related to the major accounting systems. Topics include general ledger, accounts receivable, accounts payable, inventory, payroll, and correcting, adjusting, and closing entries. Upon completion, students should be able to use a computer accounting package to solve accounting problems.

ACC 175 Hotel Restaurant Acct 3 2 4
Prerequisites:
Corequisites: None

This course covers generally accepted accounting principles and the uniform system of accounts for small hotels and motels of the American Hotel and Motel Association. Emphasis is placed on the accounting cycle, analysis of financial statements, and payroll procedures including treatment of tips. Upon completion, students should be able to demonstrate competence in the accounting principles and procedures used in hotels and restaurants.

ACC 220 Intermed Accounting I 3 2 4
Prerequisites: ACC 121
Corequisites: None

This course is a continuation of the study of accounting principles with in-depth coverage of theoretical concepts and financial statements. Topics include generally accepted accounting principles and statements and extensive analyses of balance sheet components. Upon completion, students should be able to demonstrate competence in the conceptual framework underlying financial accounting, including the application of financial standards.

ACC 221 Intermed Accounting II 3 2 4
Prerequisites: ACC 220
Corequisites: None

This course is a continuation of ACC 220. Emphasis is placed on special problems which may include leases, bonds, investments, ratio analyses, present value applications, accounting changes, and corrections. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered.

ACC 225 Cost Accounting 3 0 3
Prerequisites: ACC 121
Corequisites: None

This course introduces the nature and purposes of cost accounting as an information system for planning and control. Topics include direct materials, direct labor, factory overhead, process, job order, and standard cost systems. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered.

ACC 269 Auditing 3 0 3
Prerequisites: ACC 220
Corequisites: None

This course covers the overall framework of the process of conducting audits and investigations. Emphasis is placed on collecting data from working papers, arranging and systematizing the audit, and writing the audit report. Upon completion, students should be able to demonstrate competence in applying the generally accepted auditing standards and the procedures for conducting an audit.

AHR 110 Intro to Refrigeration Class 2 Lab 6 Credit 5 Clinical
Prerequisites:
Corequisites: None

This course introduces the basic refrigeration process used in mechanical refrigeration and air conditioning systems. Topics include terminology, safety, and identification and function of components; refrigeration cycle; and tools and instrumentation used in mechanical refrigeration systems. Upon completion, students should be able to identify refrigeration systems and components, explain the refrigeration process, and use the tools and instrumentation of the trade.

AHR 112 Heating Technology Class 2 Lab 4 Credit 4 Clinical
Prerequisites:
Corequisites: None

This course covers the fundamentals of heating including oil, gas, and electric heating systems. Topics include safety, tools and instrumentation, system operating characteristics, installation techniques, efficiency testing, electrical power, and control systems. Upon completion, students should be able to explain the basic oil, gas, and electrical heating systems and describe the major components of a heating system.

AHR 113 Comfort Cooling Class 2 Lab 4 Credit 4 Clinical
Prerequisites: AHR 110
Corequisites: None

This course covers the installation procedures, system operations, and maintenance of residential and light commercial comfort cooling systems. Topics include terminology, component operation, and testing and repair of equipment used to control and produce assured comfort levels. Upon completion, students should be able to use psychometrics, manufacturer specifications, and test instruments to determine proper system operation.

AHR 114 Heat Pump Technology Class 2 Lab 4 Credit 4 Clinical
Prerequisites: AHR 110 or AHR 113
Corequisites: None

This course covers the principles of air source and water source heat pumps. Emphasis is placed on safety, modes of operation, defrost systems, refrigerant charging, and system performance. Upon completion, students should be able to understand and analyze system performance and perform routine service procedures.

AHR 115 Refrigeration Systems Class 1 Lab 3 Credit 2 Clinical
Prerequisites: AHR 110
Corequisites: None

This course introduces refrigeration systems and applications. Topics include defrost methods, safety and operational control, refrigerant piping, refrigerant recovery and charging, and leak testing. Upon completion, students should be able to assist in installing and testing refrigeration systems and perform simple repairs.

AHR 120 HVACR Maintenance Class 1 Lab 3 Credit 2 Clinical
Prerequisites:
Corequisites: None

This course introduces the basic principles of industrial air conditioning and heating systems. Emphasis is placed on preventive maintenance procedures for heating and cooling equipment and related components. Upon completion, students should be able to perform routine preventive maintenance tasks, maintain records, and assist in routine equipment repairs.

AHR 130 HVAC Controls Class 2 Lab 2 Credit 3 Clinical
Prerequisites: AHR 111 or ELC 111
Corequisites: None

This course covers the types of controls found in residential and commercial comfort systems. Topics include electrical and electronic controls, control schematics and diagrams, test instruments, and analyis and troubleshooting of electrical systems. Upon completion, students should be able to diagnose and repair common residential and commercial comfort system controls.

AHR 133 HVAC Servicing Class 2 Lab 6 Credit 4 Clinical
Prerequisites:
Corequisites: AHR 112 or AHR 113

The course covers the maintenance and servicing of HVAC equipment. Topics include testing, adjusting, maintaining, and troubleshooting HVAC equipment and record keeping. Upon completion, students should be able to adjust, maintain, and service HVAC equipment.

AHR 140 All-Weather Systems Class 1 Lab 3 Credit 2 Clinical
Prerequisites: AHR 112 or AHR 113
Corequisites: None

This course covers the principles of combination heating and cooling systems including gas-electric, all-electric, and oil-electric systems. Topics include PTAC's and package and split-system units. Upon completion, students should be able to understand systems performance and perform routine maintenance procedures.

AHR 151 HVAC Duct Systems I Class 1 Lab 3 Credit 2 Clinical
Prerequisites:
Corequisites: None

This course introduces the techniques used to lay out and fabricate duct work commonly found in HVAC systems. Emphasis is placed on the skills required to fabricate duct work. Upon completion, students should be able to lay out and fabricate simple duct work.

Class Lab Credit Clinical

AHR 160 Refrigerant Certification 1 0 1
Prerequisites:
Corequisites: None

This course covers the requirements for the EPA certification examinations. Topics include small appliances, high pressure systems, and low pressure systems. Upon completion, students should be able to demonstrate knowledge of refrigerants and be prepared for the EPA certification examinations.

AHR 211 Residential System Design 2 2 3
Prerequisites:
Corequisites: None

This course introduces the principles and concepts of conventional residential heating and cooling system design. Topics include heating and cooling load estimating, basic psychometrics, equipment selection, duct system selection, and system design. Upon completion, students should be able to design a basic residential heating and cooling system.

ANT 210 General Anthropology 3 0 3
Prerequisite: "Proficiency in reading or a grade of "C" or better in ENG 095
Corequisite: None

This course introduces the physical, archaeological, linguistic, and ethnological fields of anthropology. Topics include human origins, genetic variations, archaeology, linguistics, primatology, and contemporary cultures. Upon completion, students should be able to demonstrate an understanding of the four major fields of anthropology. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.

ARC 111 Intro to Arch Technology 1 6 3
Prerequisites:
Corequisites: None

This course introduces basic architectural drafting techniques, lettering, use of architectural and engineer scales, and sketching. Topics include orthographic, isometric, and oblique drawing techniques using architectural plans, elevations, sections, and details; reprographic techniques; and other related topics. Upon completion, students should be able to prepare and print scaled drawings within minimum architectural standards.

ARC 112 Constr Matls & Methods 3 2 4
Prerequisites:
Corequisites: None

This course introduces construction materials and their methodologies. Topics include construction terminology, materials and their properties, manufacturing processes, construction techniques, and other related topics. Upon completion, students should be able to detail construction assemblies and identify construction materials and properties.

ARC 113 Residential Arch Tech 1 6 3
Prerequisites: ARC 111
Corequisites: ARC 112

This course covers intermediate residential working drawings. Topics include residential plans, elevations, sections, details, schedules, and other related topics. Upon completion, students should be able to prepare a set of residential working drawings that are within accepted architectural standards.

ARC 114 Architectural CAD 1 3 2
Prerequisites: ARC 111 or LAR 111
Corequisites: None

This course introduces basic architectural CAD techniques. Topics include basic commands and system hardware and software. Upon completion, students should be able to prepare and plot architectural drawings to scale within accepted architectural standards.

ARC 114A Architectural CAD Lab 0 3 1
Prerequisites:
Corequisites: ARC 114

This course provides a laboratory setting to enhance architectural CAD skills. Emphasis is placed on further development of commands and system operation. Upon completion, students should be able to prepare and plot scaled architectural drawings.

ARC 131 Building Codes 2 2 3
Prerequisites: ARC 112
Corequisites: None

This course covers the methods of researching building codes for specific projects. Topics include residential and commercial building codes. Upon completion, students should be able to determine the code constraints governing residential and commercial projects.

ARC 211 Light Constr Technology 1 6 3
Prerequisites: ARC 111
Corequisites: ARC 112

This course covers working drawings for light construction. Topics include plans, elevations, sections, and details; schedules; and other related topics. Upon completion, students should be able to prepare a set of working drawings which are within accepted architectural standards.

ARC 213 Design Project Class 2 Lab 6 Credit 4 Clinical
Prerequisites: ARC 114 and ARC 211
Corequisites: None

This course provides the opportunity to design and prepare a set of contract documents within an architectural setting. Topics include schematic design, design development, construction documents, and other related topics. Upon completion, students should be able to prepare a set of commercial contract documents.

ARC 220 Adv Architect CAD 1 3 2
Prerequisites: ARC 114
Corequisites: None

This course provides file management, productivity, and CAD customization skills. Emphasis is placed on developing advanced proficiency techniques. Upon completion, students should be able to create prototype drawings and symbol libraries, compose sheets with multiple details, and use advanced drawing and editing commands.

ARC 221 Architectural 3-D CAD 1 4 3
Prerequisites: ARC 114
Corequisites: None

This course introduces architectural three-dimensional CAD applications. Topics include three-dimensional drawing, coordinate systems, viewing, rendering, modeling, and output options. Upon completion, students should be able to prepare architectural three-dimensioning drawings and renderings.

ARC 230 Environmental Systems 3 3 4
Prerequisites: ARC 111 and MAT 121
Corequisites: None

This course introduces plumbing, mechanical (HVAC), and electrical systems for the architectural environment. Topics include basic plumbing, mechanical, and electrical systems for residential and/or commercial buildings with an introduction to selected code requirements. Upon completion, students should be able to develop schematic drawings for plumbing, mechanical, and electrical systems and perform related calculations.

ARC 231 Arch Presentations 2 4 4
Prerequisites: ARC 111
Corequisites: None

This course introduces architectural presentation techniques. Topics include perspective drawing, shadow projection, texturization, rendered plans, elevations, and other related topics. Upon completion, students should be able to present ideas graphically and do rendered presentation drawings.

ARC 235 Architectural Portfolio 2 3 3
Prerequisites: None
Corequisites: None

This course covers the methodology for the creation of an architectural portfolio. Topics include preparation of marketing materials and a presentation strategy using conventional and/or digital design media. Upon completion, students should be able to produce an architectural portfolio of selected projects.

ARC 241 Contract Administration 1 2 2
Prerequisites: ARC 111 or ARC 112
Corequisites: None

This course covers the techniques for reviewing the progress of construction projects. Topics include site observations, field reports, applications for payment, change orders, and other related topics. Upon completion, students should be able to review construction progress and produce appropriate documentation.

ARC 250 Survey of Architecture 3 0 3
Prerequisites:
Corequisites: None

This course introduces the historical trends in architectural form. Topics include historical and current trends in architecture. Upon completion, students should be able to demonstrate an understanding of significant historical and current architectural styles.

ARC 264 Digital Architecture 1 3 2
Prerequisites: ARC 114
Corequisites: None

This course covers multiple digital architectural techniques. Topics include spreadsheets and word processing procedures, on-line resources, modems, e-mail, image capture, multimedia, and other related topics. Upon completion, students should be able to transmit/receive electronic data, create multimedia presentations, and produce a desktop publishing document.

ART 111 Art Appreciation 3 0 3
Prerequisites:
Corequisites: None

This course introduces the origins and historical development of art. Emphasis is placed on the relationship of design principles to various art forms including but not limited to sculpture, painting, and architecture. Upon completion, students should be able to identify and analyze a variety of artistic styles, periods, and media.

ART 114 Art History Survey I — Class 3, Lab 0, Credit 3, Clinical
Prerequisites:
Corequisites: None

This course covers the development of art forms from ancient times to the Renaissance. Emphasis is placed on content, terminology, design, and style. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of human social development.

ART 115 Art History Survey II — Class 3, Lab 0, Credit 3, Clinical
Prerequisites:
Corequisites: None

This course covers the development of art forms from the Renaissance to the present. Emphasis is placed on content, terminology, design, and style. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of human social development.

ART 116 Survey of American Art — Class 3, Lab 0, Credit 3, Clinical
Prerequisites:
Corequisites: None

This course covers the development of American art forms from colonial times to the present. Emphasis is placed on architecture, painting, sculpture, graphics, and the decorative arts. Upon completion, students should be able to demonstrate understanding of the history of the American creative experience.

ART 117 Non-Western Art History — Class 3, Lab 0, Credit 3, Clinical
Prerequisites:
Corequisites: None

This course introduces non-Western cultural perspectives. Emphasis is placed on, but not limited to, African, Oriental, and Oceanic art forms throughout history. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of non-Western social and cultural development.

ART 121 Design I — Class 1, Lab 4, Credit 3, Clinical
Prerequisites:
Corequisites: None

This course introduces the elements and principles of design as applied to two-dimensional art. Emphasis is placed on the structural elements, the principles of visual organization, and the theories of color mixing and interaction. Upon completion, students should be able to understand and use critical and analytical approaches as they apply to two-dimensional visual art.

ART 131 Drawing I — Class 0, Lab 6, Credit 3, Clinical
Prerequisites:
Corequisites: None

This course introduces the language of drawing and the use of various drawing materials. Emphasis is placed on drawing techniques, media, and graphic principles. Upon completion, students should be able to demonstrate competence in the use of graphic form and various drawing processes.

ART 132 Drawing II — Class 0, Lab 6, Credit 3, Clinical
Prerequisites: ART 131
Corequisites: None

This course continues instruction in the language of drawing and the use of various materials. Emphasis is placed on experimentation in the use of drawing techniques, media, and graphic materials. Upon completion, students should be able to demonstrate increased competence in the expressive use of graphic form and techniques.

ART 240 Painting I — Class 0, Lab 6, Credit 3, Clinical
Prerequisites:
Corequisites: None

This course introduces the language of painting and the use of various painting materials. Emphasis is placed on the understanding and use of various painting techniques, media, and color principles. Upon completion, students should be able to demonstrate competence in the use of creative processes directed toward the development of expressive form.

ART 261 Photography I — Class 1, Lab 4, Credit 3, Clinical
Prerequisites:
Corequisites: None

This course introduces photographic equipment, theory, and processes. Emphasis is placed on camera operation, composition, darkroom technique, and creative expression. Upon completion, students should be able to successfully expose, develop, and print a well-conceived composition.

ART 283 Ceramics I — Class 0, Lab 6, Credit 3, Clinical
Prerequisites:
Corequisites: None

This course provides an introduction to three-dimensional design principles using the medium of clay. Emphasis is placed on fundamentals of forming, surface design, glaze application, and firing. Upon completion, students should be able to demonstrate skills in slab and coil construction, simple wheel forms, glaze technique, and creative expression.

	Class	Lab	Credit	Clinical
AST 111 Descriptive Astronomy	3	0	3	

Prerequisites:
Corequisites: None

This course introduces an overall view of modern astronomy. Topics include an overview of the solar system, the sun, stars, galaxies, and the larger universe. Upon completion, students should be able to demonstrate an understanding of the universe around them.

AST 111A Descriptive Astro Lab	0	2	1	

Prerequisites:
Corequisites: AST 111

The course is a laboratory to accompany AST 111. Emphasis is placed on laboratory experiences which enhance the materials presented in AST 111 and which provide practical experience. Upon completion, students should be able to demonstrate an understanding of the universe around them.

ATR 112 Intro to Automation	2	3	3	

Prerequisites:
Corequisites: None

This course introduces the basic principles of automated manufacturing and describes the tasks that technicians perform on the job. Topics include the history, development, and current applications of robots and automated systems including their configuration, operation, components, and controls. Upon completion, students should be able to understand the basic concepts of automation and robotic systems.

AUB 111 Painting & Refinish I	2	6	4	

Prerequisites:
Corequisites: None

This course introduces the proper procedures for using automotive refinishing equipment and materials in surface preparation and application. Topics include federal, state, and local regulations, personal safety, refinishing equipment and materials, surface preparation, masking, application techniques, and other related topics. Upon completion, students should be able to identify and use proper equipment and materials in refinishing following accepted industry standards.

AUB 112 Painting & Refinish II	2	6	4	

Prerequisites: AUB 111
Corequisites: None

This course covers advanced painting techniques and technologies with an emphasis on identifying problems encountered by the refinishing technician. Topics include materials application, color matching, correction of refinishing problems, and other related topics. Upon completion, students should be able to perform spot, panel, and overall refinishing repairs and identify and correct refinish problems.

	Class	Lab	Credit	Clinical
AUB 114 Special Finishes	1	2	2	

Prerequisites: AUB 111
Corequisites: None

This course introduces multistage finishes, custom painting, and protective coatings. Topics include base coats, advanced intermediate coats, clear coats, and other related topics. Upon completion, students should be able to identify and apply specialized finishes based on accepted industry standards.

AUB 121 Non-Structural Damage I	1	4	3	

Prerequisites:
Corequisites: None

This course introduces safety, tools, and the basic fundamentals of body repair. Topics include shop safety, damage analysis, tools and equipment, repair techniques, materials selection, materials usage, and other related topics. Upon completion, students should be able to identify and repair minor direct and indirect damage including removal/repairing/replacing of body panels to accepted standards.

AUB 122 Non-Struct Damage II	2	6	4	

Prerequisites:
Corequisites: None

This course covers safety, tools, and advanced body repair . Topics include shop safety, damage analysis, tools and equipment, advanced repair techniques, materials selection, materials usage, movable glass, and other related topics. Upon completion, students should be able to identify and repair or replace direct and indirect damage to accepted standards including movable glass and hardware.

AUB 131 Structural Damage I	2	4	4	

Prerequisites:
Corequisites: None

This course introduces safety, equipment, structural damage analysis, and damage repairs. Topics include shop safety, design and construction, structural analysis and measurement, equipment, structural glass, repair techniques, and other related topics. Upon completion, students should be able to analyze and perform repairs to a vehicle which has received light/moderate structural damage.

AUB 132 Structural Damage II	2	6	4	

Prerequisites: AUB 131
Corequisites: None

This course provides an in-depth study of structural damage analysis and repairs to vehicles that have received moderate to heavy structural damage. Topics include shop safety, structural analysis and measurement, equipment, structural glass, advanced repair techniques, structural component replacement and alignment, and other related topics. Upon completion, students should be able to analyze and perform repairs according to industry standards.

AUB 134 Autobody MIG Welding Class 1 Lab 4 Credit 3 Clinical
Prerequisites:
Corequisites: None

This course covers the terms and procedures for welding the various metals found in today's autobody repair industry with an emphasis on personal/environmental safety. Topics include safety and precautionary measures, setup/operation of MIG equipment, metal identification methods, types of welds/joints, techniques, inspection methods, and other related topics. Upon completion, students should be able to demonstrate a basic knowledge of welding operations and safety procedures according to industry standards.

AUB 136 Plastics & Adhesives 1 4 3
Prerequisites:
Corequisites: None

This course covers safety, plastic and adhesive identification, and the various repair methods of automotive plastic components. Topics include safety, identification, preparation, material selection, and the various repair procedures including refinishing. Upon completion, students should be able to identify, remove, repair, and/or replace automotive plastic components in accordance with industry standards.

AUB 150 Automotive Detailing 1 3 2
Prerequisites:
Corequisites: None

This course covers the methods and procedures used in automotive detailing facilities. Topics include safety, engine, interior and trunk compartment detailing, buffing/polishing exterior surfaces, and cleaning and reconditioning exterior trim, fabrics, and surfaces. Upon completion, students should be able to improve the overall appearance of a vehicle.

AUB 160 Body Shop Operations 1 0 1
Prerequisites:
Corequisites: None

This course introduces the day-to-day operations of autobody repair facilities. Topics include work habits and ethics, customer relations, equipment types, materials cost and control, policies and procedures, shop safety and liabilities, and other related topics. Upon completion, students should be able to understand the general operating policies and procedures associated with an autobody repair facility.

AUB 162 Autobody Estimating 1 2 2
Prerequisites:
Corequisites: None

This course provides a comprehensive study of autobody estimating. Topics include collision damage analysis, industry regulations, flat-rate and estimated time, and collision estimating manuals. Upon completion, students should be able to prepare and interpret a damage report.

AUT 111 Basic Auto Technology Class 1 Lab 2 Credit 2 Clinical
Prerequisites:
Corequisites: None

This course introduces basic concepts, terms, workplace safety, regulations, and service information relating to automotive technology. Emphasis is placed on developing familiarity with automotive components along with basic identification and proper use of various hand and power tools and shop equipment. Upon completion, students should be able to define and use terms associated with automobiles and identify and use basic tools and shop equipment.

AUT 115 Engine Fundamentals 2 3 3
Prerequisites:
Corequisites: None

This course covers the theory, construction, inspection, diagnosis, and repair of internal combustion engines and related systems. Topics include fundamental operating principles of engines and diagnosis, inspection, adjustment, and repair of automotive engines using appropriate service information. Upon completion, students should be able to perform basic diagnosis/repair of automotive engines using appropriate tools, equipment, procedures, and service information.

AUT 116 Engine Repair 1 3 2
Prerequisites:
Corequisites: None

This course covers service/repair/rebuilding of block, head, and internal engine components. Topics include engine repair/reconditioning using service specifications. Upon completion, students should be able to rebuild/recondition an automobile engine to service specifications.

AUT 141 Suspension & Steering Sys 2 4 4
Prerequisites:
Corequisites: None

This course covers principles of operation, types, and diagnosis/repair of suspension and steering systems to include steering geometry. Topics include manual and power steering systems and standard and electronically controlled suspension and steering systems. Upon completion, students should be able to service and repair various steering and suspension components, check and adjust various alignment angles, and balance wheels.

AUT 151 Brake Systems 2 2 3
Prerequisites:
Corequisites: None

This course covers principles of operation and types, diagnosis, service, and repair of brake systems. Topics include drum and disc brakes involving hydraulic, vacuum boost, hydraboost, electrically powered boost, and anti-lock and parking brake systems. Upon completion, students should be able to

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diagnose, service, and repair various automotive braking systems.

AUT 152 Brake Systems Lab 0 2 1

Prerequisite: None
Corequisite: AUT 151

This course provides a laboratory setting to enhance brake system skills. Emphasis is placed on practical experiences that enhance the topics presented in AUT 151. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in AUT 151.

AUT 161 Electrical Systems 2 6 4
Prerequisites:
Corequisites: None

This course covers basic electrical theory and wiring diagrams, test equipment, and diagnosis/repair/replacement of batteries, starters, alternators, and basic electrical accessories. Topics include diagnosis and repair of battery, starting, charging, lighting, and basic accessory systems problems. Upon completion, students should be able to diagnose, test, and repair the basic electrical components of an automobile.

AUT 164 Automotive Electronics 2 2 3
Prerequisites:
Corequisites: None

This course covers fundamentals of electrical/electronic circuitry, semi-conductors, and microprocessors. Topics include Ohm's law, circuits, AC/DC current, solid state components, digital applications, and the use of digital multimeters. Upon completion, students should be able to apply Ohm's law to diagnose and repair electrical/electronic circuits using digital multimeters and appropriate service information.

AUT 171 Heating & Air Cond 2 3 3
Prerequisites:
Corequisites: None

This course covers the theory of refrigeration and heating, electrical/electronic/pneumatic controls, and diagnosis/repair of climate control systems. Topics include diagnosis and repair of climate control components and systems, recovery/recycling of refrigerants, and safety and environmental regulations. Upon completion, students should be able to describe the operation, diagnose, and safely service climate control systems using appropriate tools, equipment, and service information.

AUT 181 Engine Perform-Electric 2 3 3
Prerequisites:
Corequisites: None

This course covers the principles, systems, and procedures required for diagnosing and restoring engine performance

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using electrical/electronics test equipment. Topics include procedures for diagnosis and repair of ignition, emission control, and related electronic systems. Upon completion, students should be able to describe operation of and diagnose/repair ignition/emission control systems using appropriate test equipment and service information.

AUT 183 Engine Perform-Fuels 2 3 3
Prerequisites:
Corequisites: None

This course covers the principles of fuel delivery/management, exhaust/emission systems, and procedures for diagnosing and restoring engine performance using appropriate test equipment. Topics include procedures for diagnosis/repair of fuel delivery/management and exhaust/emission systems using appropriate service information. Upon completion, students should be able to describe, diagnose, and repair engine fuel delivery/management and emission control systems using appropriate service information and diagnostic equipment.

AUT 184 Engine Perfor-Fuels Lab 0 3 1
Prerequisites: None
Corequisites: AUT 181

This course provides a laboratory setting to enhance the skills for diagnosing and repairing fuel delivery/management and emission systems. Emphasis is placed on practical experiences that enhance the topics presented in AUT 183. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in AUT 183.

AUT 221 Automatic Transmissions 2 6 4
Prerequisites:
Corequisites: None

This course covers operation, diagnosis, service, and repair of automatic transmissions/transaxles. Topics include hydraulic, pneumatic, mechanical, and electrical/electronic operation of automatic drive trains and the use of appropriate service tools and equipment. Upon completion, students should be able to explain operational theory and diagnose and repair automatic drive trains.

AUT 222 Adv Auto Drive Trains 2 2 3
Prerequisites:
Corequisites: None

This course covers advanced diagnosis and repair of automatic drive trains. Topics include testing of sensors, actuators, and control modules using on-board diagnostics, appropriate service information, and equipment. Upon completion, students should be able to perform advanced automatic drive train diagnosis and repair.

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AUT 231 Manual Drive Train/Axle 2 3 3
Prerequisites:
Corequisites: None

This course covers the operation, diagnosis, and repair of manual transmissions/transaxles, clutches, driveshafts, axles, and final drives. Topics include theory of torque, power flow, and manual drive train service and repair using appropriate service information, tools, and equipment. Upon completion, students should be able to explain operational theory and diagnose and repair manual drive trains.

AUT 241 Adv Chassis/Suspension 2 6 4
Prerequisites: AUT 141
Corequisites: None

This course provides advanced training in automotive chassis and suspension using computerized two- and four-wheel alignment equipment. Emphasis is placed on suspension and chassis system design, construction, and repair for modern front- and rear-drive vehicles. Upon completion, students should be able to perform necessary adjustments and repairs on vehicles using computerized alignment equipment.

AUT 271 Adv Heating & A/C 2 2 3
Prerequisites:
Corequisites: None

This course utilizes service information and test equipment to diagnose automatic temperature control and ventilation systems. Topics include advanced testing of sensors, actuators, and control modules using service information, on-board diagnostics, and/or appropriate test equipment. Upon completion, students should be able to perform advanced diagnosis and repair on automatic temperature control and ventilation systems.

AUT 281 Adv Engine Perform 2 2 3
Prerequisites:
Corequisites: None

This course utilizes service information and specialized test equipment to diagnose/repair power train control systems. Topics include computerized ignition, fuel and emission systems, related diagnostic tools and equipment, data communication networks, and service information. Upon completion, students should be able to perform advanced engine performance diagnosis and repair.

AUT 282 Engine Elec Management 3 9 6
Prerequisite: None
Corequisite: None

This course includes principles, systems, and procedures required for diagnosing and restoring engine performance/driveability and emission control through mechanical, electrical, and gas analysis. Emphasis is placed on diagnostics using mechanical, electrical (including on-board), and gas analysis to determine root causes for repair purposes. Upon completion, students should be able to diagnose and repair PCM-related engine performance/driveability and emission problems.

BIO 106 Intro to Anat/Phys/Micro 2 2 3
Prerequisites:
Corequisites: None

This course covers the fundamental and principle concepts of human anatomy and physiology and microbiology. Topics include an introduction to the structure and function of cells, tissues, and human organ systems, and an overview of microbiology, epidemiology, and control of microorganisms. Upon completion, students should be able to identify structures and functions of the human body and describe microorganisms and their significance in health and disease.

BIO 110 Principles of Biology 3 3 4
Prerequisites
Corequisites: None

This course provides a survey of fundamental biological principles for non-science majors. Emphasis is placed on basic chemistry, cell biology, metabolism, genetics, taxonomy, evolution, ecology, diversity, and other related topics. Upon completion, students should be able to demonstrate increased knowledge and better understanding of biology as it applies to everyday life.

BIO 111 General Biology I 3 3 4
Prerequisites ENG 095 or equivalent reading placement
Corequisites: None

This course introduces the principles and concepts of biology. Emphasis is placed on basic biological chemistry, cell structure and function, metabolism and energy transformation, genetics, evolution, classification, and other related topics. Upon completion, students should be able to demonstrate understanding of life at the molecular and cellular levels.

BIO 163 Basic Anat & Physiology 4 2 5
Prerequisites:
Corequisites: None

This course provides a basic study of the structure and function of the human body. Topics include a basic study of the body systems as well as an introduction to homeostasis, cells, tissues, nutrition, acid-base balance, and electrolytes. Upon completion, students should be able to demonstrate a basic understanding of the fundamental principles of anatomy and physiology and their interrelationships.

	Class	Lab	Credit	Clinical
BIO 168 Anatomy and Physiology I	3	3	4	

Prerequisites:
Corequisites: None

This course provides a comprehensive study of the anatomy and physiology of the human body. Topics include body organization, homeostasis, cytology, histology, and the integumentary, skeletal, muscular, nervous, special senses, and endocrine systems. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships.

BIO 169 Anat and Physiology II	3	3	4	

Prerequisites: BIO 168
Corequisites: None

This course provides a continuation of the comprehensive study of the anatomy and physiology of the human body. Topics include the cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems as well as metabolism, nutrition, acid-base balance, and fluid and electrolyte balance. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships.

BIO 175 General Microbiology	2	2	3	

Prerequisites: BIO 110, BIO 163, BIO 166 or BIO 169
Corequisites: None

This course covers principles of microbiology with emphasis on microorganisms and human disease. Topics include an overview of microbiology and aspects of medical microbiology, identification and control of pathogens, disease transmission, host resistance, and immunity. Upon completion, students should be able to demonstrate knowledge of microorganisms and the disease process as well as aseptic and sterile techniques.

BPR 111 Blueprint Reading	1	2	2	

Prerequisites:
Corequisites: None

This course introduces the basic principles of blueprint reading. Topics include line types, orthographic projections, dimensioning methods, and notes. Upon completion, students should be able to interpret basic blueprints and visualize the features of a part.

BPR 121 Blueprint Reading: Mech	1	2	2	

Prerequisites: BPR 111 or MAC 131
Corequisites: None

This course covers the interpretation of intermediate blueprints. Topics include tolerancing, auxiliary views, sectional views, and assembly drawings. Upon completion, students should be able to read and interpret a mechanical working drawing.

	Class	Lab	Credit	Clinical
BPR 130 Blueprint Reading/Const	1	2	2	

Prerequisites:
Corequisites: None

This course covers the interpretation of blueprints and specifications that are associated with the construction trades. Emphasis is placed on interpretation of details for foundations, floor plans, elevations, and schedules. Upon completion, students should be able to read and interpret a set of construction blueprints.

BTB 101 Boat Building I	5	15	10	

Prerequisites:
Corequisites: DFT 100

This course introduces the modern wood and composite boat shop. Topics include maintaining, sharpening, and safely using hand and power tools; lofting; and properly utilizing materials common in the boat-building industry. Upon completion, students should be able to loft a simple flat or V-bottom boat and build it using sheet plywood construction methods. *This is a diploma-level course.*

BTB 102 Boat Building II	4	15	9	

Prerequisites: BTB 101
Corequisites: None

This course introduces more advanced hull development. Topics include advanced lofting, building jigs and birdcage building forms, wood and composite lamination techniques, marine finishing materials and methods, and quality control procedures. Upon completion, students should be able to build, fit out, and finish a small boat using modern fabrics, core materials, and methods of construction. *This is a diploma-level course.*

BTB 103 Yacht Joiner Practices I	2	4	4	

Prerequisites: BTB 101
Corequisites: None

This course introduces the fundamental skills and attention to detail necessary to fine yacht joinery. Emphasis is placed on fitting, mortise/tenon, and dowel joints; fitting dadoes in grooves; and building a project to close tolerances from a blueprint. Upon completion, students should be able to build a cabinet carcass with face frame, round corner posts, laminate surfaces, and a dove-tailed drawer. *This is a diploma-level course.*

BTB 104 Yacht Joiner Practices II	1	4	3	

Prerequisites: BTB 103
Corequisites: BTB 102

This course is an extension of BTB 103 and emphasizes finishing cabinets and rough-in of yacht interiors. Topics include manufacturing and fitting moldings, door construction methods, bright work finishing, and bulkhead and cabin sole fitting and installation. Upon completion, students should be

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able to build raised panel doors and moldings, apply modern finishes, and rough in bulkheads, soles, and yacht furniture. *This is a diploma-level course.*

BTB 105 Yacht Repair/Renovation 3 4 5
Prerequisites: BTB 102
Corequisites: FBG 100

This course introduces repair/renovation principles and methods for wood and fiberglass boats. Emphasis is placed on surveying boats for needed repairs, planning repairs, and estimating costs in tools, materials, and techniques used in repair and renovation. Upon completion, students should be able to plan and execute repairs in wood and fiberglass boats (structural and cosmetic) and execute marine refinishing techniques. *This is a diploma-level course.*

BUS 110 Intro to Business 3 0 3
Prerequisites:
Corequisites: None

This course provides a survey of the business world. Topics include the basic principles and practices of contemporary business. Upon completion, students should be able to demonstrate an understanding of business concepts as a foundation for studying other business subjects.

BUS 115 Business Law I 3 0 3
Prerequisites:
Corequisites: None

This course introduces the ethics and legal framework of business. Emphasis is placed on contracts, negotiable instruments, Uniform Commercial Code, and the working of the court systems. Upon completion, students should be able to apply ethical issues and laws covered to selected business decision-making situations.

BUS 121 Business Math 2 2 3
Prerequisites:
Corequisites: None

This course covers fundamental mathematical operations and their application to business problems. Topics include payroll, pricing, interest and discount, commission, taxes, and other pertinent uses of mathematics in the field of business. Upon completion, students should be able to apply mathematical concepts to business.

BUS 137 Princip of Management 3 0 3
Prerequisites:
Corequisites: None

This course is designed to be an overview of the major functions of management. Emphasis is placed on planning, organizing, controlling, directing, and communicating. Upon completion, students should be able to work as contributing members of a team utilizing these functions of management.

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BUS 151 People Skills 3 0 3
Prerequisites:
Corequisites: None

This course introduces the basic concepts of identity and communication in the business setting. Topics include self-concept, values, communication styles, feelings and emotions, roles versus relationships, and basic assertiveness, listening, and conflict resolution. Upon completion, students should be able to distinguish between unhealthy, self-destructive, communication patterns and healthy, non-destructive, positive communication patterns.

BUS 225 Business Finance 2 2 3
Prerequisites: ACC 120
Corequisites: None

This course provides an overview of business financial management. Emphasis is placed on financial statement analysis, time value of money, management of cash flow, risk and return, and sources of financing. Upon completion, students should be able to interpret and apply the principles of financial management.

BUS 230 Small Business Mgt 3 0 3
Prerequisites:
Corequisites: None

This course introduces the challenges of entrepreneurship including the startup and operation of a small business. Topics include market research techniques, feasibility studies, site analysis, financing alternatives, and managerial decision making. Upon completion, students should be able to develop a small business plan.

BUS 239 Bus Applications Seminar 1 2 2
Prerequisites: ACC 120, BUS 115, BUS 137, MKT 120, and either ECO 151, 251 or 252
Corequisites: None

This course is designed as a capstone course for Business Administration majors. Emphasis is placed on decision making in the areas of management, marketing, production, purchasing, and finance. Upon completion, students should be able to apply the techniques, processes, and vital professional skills needed in the work place.

BUS 240 Business Ethics 3 0 3
Prerequisites:
Corequisites: None

This course introduces contemporary and controversial ethical issues that face the business community. Topics include moral reasoning, moral dilemmas, law and morality, equity, justice and fairness, ethical standards, and moral development. Upon completion, students should be able to demonstrate an understanding of their moral responsibilities and obligations as members of the workforce and society.

BUS 270 Professional Development Class 3 Lab 0 Credit 3 Clinical
Prerequisites:
Corequisites: None

This course provides basic knowledge of self-improvement techniques as related to success in the professional world. Topics include positive human relations, job-seeking skills, and projecting positive self-image. Upon completion, students should be able to demonstrate competent personal and professional skills necessary to get and keep a job.

BUS 280 REAL Small Business 4 0 4
Prerequisites:
Corequisites: None

This course introduces hands-on techniques and procedures for planning and opening a small business, including the personal qualities needed for entrepreneurship. Emphasis is placed on market research, finance, time management, and day-to-day activities of owning/operating a small business. Upon completion, students should be able to write and implement a viable business plan and seek funding.

CAR 111 Carpentry I 4 15 9
Prerequisites:
Corequisites: None

This course introduces the theory and construction methods associated with the building industry, including framing, materials, tools, and equipment. Topics include safety, hand/power tool use, site preparation, measurement and layout, footings and foundations, construction framing, and other related topics. Upon completion, students should be able to safely lay out and perform basic framing skills with supervision. *This is a diploma-level course.*

CAR 112 Carpentry II 4 15 9
Prerequisites: CAR 111
Corequisites: None

This course covers the advanced theory and construction methods associated with the building industry including framing and exterior finishes. Topics include safety, hand/power tool use, measurement and layout, construction framing, exterior trim and finish, and other related topics. Upon completion, students should be able to safely frame and apply exterior finishes to a residential building with supervision.

CAR 113 Carpentry III 3 9 6
Prerequisites: CAR 111
Corequisites: None

This course covers interior trim and finishes. Topics include safety, hand/power tool use, measurement and layout, specialty framing, interior trim and finishes, cabinetry, and other related topics. Upon completion, students should be able to safely install various interior trim and finishes in a residential building with supervision.

CAR 114 Residential Bldg Codes 3 0 3
Prerequisites:
Corequisites: None

This course covers building codes and the requirements of state and local construction regulations. Emphasis is placed on the minimum requirements of the North Carolina building codes related to residential structures. Upon completion, students should be able to determine if a structure is in compliance with North Carolina building codes.

CAR 115 Res Planning/Estimating 3 0 3
Prerequisites: BPR 130
Corequisites: None

This course covers project planning, management, and estimating for residential or light commercial buildings. Topics include planning and scheduling, interpretation of working drawings and specifications, estimating practices, and other related topics. Upon completion, students should be able to perform quantity take-offs and cost estimates.

CET 110 Intro to CET 0 3 1
Prerequisites:
Corequisites: None

This course introduces the basic skills required for computer technicians. Topics include career choices, safety practices, technical problem solving, scientific calculator usage, soldering/desoldering, keyboarding skills, engineering computer applications, and other related topics. Upon completion, students should be able to safely solder/desolder and use a scientific calculator and computer applications to solve technical problems.

CET 111 Comp Upgrade/Repair I 2 3 3
Prerequisites:
Corequisites: CIS 111 or Instructor Approval

This course is the first of two courses covering repairing, servicing, and upgrading computers and peripherals in preparation for industry certification. Topics include safety practices, CPU/memory/bus identification, disk subsystem, hardware/software installation/configuration, common device drivers, data recovery, system maintenance, and other related topics. Upon completion, students should be able to safely repair and/or upgrade computer systems to perform within specifications.

CET 211 Comp Upgrade/Repair II 2 3 3
Prerequisites: CET 111
Corequisites: None

This course is the second of two courses covering repairing, servicing, and upgrading computers and peripherals in preparation for industry certification. Topics include resolving resource conflicts and system bus specifications, configuration and troubleshooting peripherals, operating system con-

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figuration and optimization, and other related topics. Upon completion, students should be able to identify and resolve system conflicts and optimize system performance.

CET 212 Integrated Mfg Systems 1 3 2
Prerequisites: ELN 237, ELN 131
Corequisites: None

This course covers computer topics related to integrated manufacturing systems common to current manufacturing facilities. Topics include robot programming, automated control systems, PLCs, data communication, and networking in an integrated manufacturing environment, and other related topics. Upon completion, students should be able to program robots using teaching pendants and troubleshoot and maintain network installations related to integrated manufacturing systems.

CHM 131 Introduction to Chemistry 3 0 3
Prerequisites: MAT 070 or equivalent placement
Corequisites: None

This course introduces the fundamental concepts of inorganic chemistry. Topics include measurement, matter and energy, atomic and molecular structure, nuclear chemistry, stoichiometry, chemical formulas and reactions, chemical bonding, gas laws, solutions, and acids and bases. Upon completion, students should be able to demonstrate a basic understanding of chemistry as it applies to other fields.

CHM 131A Intro to Chemistry Lab 0 3 1
Prerequisites:
Corequisites: CHM 131

This course is a laboratory to accompany CHM 131. Emphasis is placed on laboratory experiences that enhance materials presented in CHM 131. Upon completion, students should be able to utilize basic laboratory procedures and apply them to chemical principles presented in CHM 131.

CHM 132 Organic and Biochem 3 3 4
Prerequisites: CHM 131
Corequisites: None

This course provides a survey of major functional classes of compounds in organic and biochemistry. Topics include structure, properties, and reactions of the major organic and biological molecules and basic principles of metabolism. Upon completion, students should be able to demonstrate an understanding of fundamental chemical concepts needed to pursue studies in related professional fields.

CHM 151 General Chemistry I 3 3 4
Prerequisites: MAT 080 or equivalent placement
Corequisites: None

This course covers fundamental principles and laws of chemistry. Topics include measurement, atomic and molecular structure, periodicity, chemical reactions, chemical bonding, stoichiometry, thermochemistry, gas laws, and solutions. Upon completion, students should be able to demonstrate an understanding of fundamental chemical laws and concepts as needed in CHM 152.

CHM 152 General Chemistry II 3 3 4
Prerequisites: CHM 151
Corequisites: None

This course provides a continuation of the study of the fundamental principles and laws of chemistry. Topics include kinetics, equilibrium, ionic and redox equations, acid-base theory, electrochemistry, thermodynamics, introduction to nuclear and organic chemistry, and complex ions. Upon completion, students should be able to demonstrate an understanding of chemical concepts as needed to pursue further study in chemistry and related professional fields.

CIS 110 Intro to Computers 2 2 3
Prerequisites:
Corequisites: None

This course provides an introduction to computers and computing. Topics include the impact of computers on society, ethical issues, and hardware/software applications, including spreadsheets, databases, word processors, graphics, the Internet, and operating systems. Upon completion, students should be able to demonstrate an understanding of the role and function of computers and use the computer to solve problems.

CIS 111 Basic PC Literacy 1 2 2
Prerequisites:
Corequisites: None

This course provides a brief overview of computer concepts. Emphasis is placed on the use of personal computers and software applications for personal and workplace use. Upon completion, students should be able to demonstrate basic personal computer skills.

CIS 112 Windows™ 1 2 2
Prerequisites: CIS 111
Corequisites: None

This course includes the fundamentals of the Windows™ software. Topics include graphical user interface, icons, directories, file management, accessories, and other applications. Upon completion, students should be able to use Windows™ software in an office environment.

CIS 115 Intro to Prog & Logic 2 2 3
Prerequisites: MAT 080 or MAT 090
Corequisites: None

This course introduces computer programming and problem solving in a programming environment, including an introduc-

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tion to operating systems, text editor, and a language translator. Topics include language syntax, data types, program organization, problem-solving methods, algorithm design, and logic control structures. Upon completion, students should be able to manage files with operating system commands, use top-down algorithm design, and implement algorithmic solutions in a programming language.

CIS 118 IS Professional Communications 2 0 2
Prerequisites:
Corequisites: None

This course prepares the information systems professional to communicate with corporate personnel from management to end-users. Topics include information systems cost justification tools, awareness of personal hierarchy of needs, addressing these needs, and discussing technical issues with non-technical personnel. Upon completion, students should be able to communicate information systems issues to technical and non-technical personnel.

CIS 120 Spreadsheet I 2 2 3
Prerequisites: CIS 111
Corequisites: None

This course introduces basic spreadsheet design and development. Topics include writing formulas, using functions, enhancing spreadsheets, creating charts, and printing. Upon completion, students should be able to design and print basic spreadsheets and charts.

CIS 130 Survey of Operating Sys 2 3 3
Prerequisites: CET 211
Corequisites: None

The course covers operating system concepts which are necessary for maintaining and using computer systems. Topics include disk, file, and directory structures; installation and setup; resource allocation, optimization, and configuration; system security; and other related topics. Upon completion, students should be able to install and configure operating systems and optimize performance. In addition the student will study the basic theory of single-user, single-task, multi-user and multi-tasking operating systems.

CIS 152 Database Concept & Apps 2 2 3
Prerequisites: CIS 111 or CIS 115
Corequisites: None

This course introduces database design and creation using a DBMS product. Topics include database terminology, usage in industry, design theory, types of DBMS models, and creation of simple tables, queries, reports, and forms. Upon completion, students should be able to create simple database tables, queries, reports, and forms which follow acceptable design practices.

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CIS 153 Database Applications 2 2 3
Prerequisites: CIS 152
Corequisites: None

This course covers advanced database functions continued from CIS 152. Topics include manipulating multiple tables, advanced queries, screens and reports, linking, and command files. Upon completion, students should be able to create multiple table systems that demonstrate updates, screens, and reports representative of industry requirements.

CIS 169 Business Presentations 1 2 2
Prerequisites: CIS 111
Corequisites: None

This course provides hands-on experience with a graphics presentation package. Topics include terminology, effective chart usage, design and layout, integrating hardware components, and enhancing presentations with text and graphics. Upon completion, students should be able to design and demonstrate an effective presentation.

CIS 172 Intro to the Internet 2 3 3
Prerequisites:
Corequisites: None

This course introduces the various navigational tools and services of the Internet. Topics include using Internet protocols, search engines, file compression/decompression, FTP, e-mail, listservers, and other related topics. Upon completion, students should be able to use Internet resources, retrieve/decompress files, and use e-mail, FTP, and other Internet tools.

CIS 286 Systems Analysis & Design 3 0 3
Prerequisites: CIS 115
Corequisites: None

This course examines established and evolving methodologies for the analysis, design, and development of a business information system. Emphasis is placed on business systems characteristics, managing information systems projects, prototyping, CASE tools, and systems development life cycle phases. Upon completion, students should be able to analyze a problem and design an appropriate solution using a combination of tools and techniques.

CIS 288 Systems Project 1 4 3
Prerequisites: CIS 227 or CIS 286
Corequisites: None

This course provides an opportunity to complete a significant systems project from the design phase through implementation with minimal instructor support. Emphasis is placed on project definition, documentation, installation, testing, presentation, and training. Upon completion, students should be able to complete a project from the definition phase through implementation.

CJC 100 Basic Law Enforce Trn Class 9 Lab 27 Credit 18 Clinical
Prerequisites:
Corequisites: None

This course covers the skills and knowledge needed for entry-level employment as a law enforcement officer in North Carolina. Emphasis is placed on topics and areas as defined by the North Carolina Administrative Code. Upon completion, students should be able to demonstrate competence in the topics and areas required for the state comprehensive examination. *This is a certificate-level course.*

CJC 111 Intro to Criminal Justice 3 0 3
Prerequisites:
Corequisites: None

This course introduces the components and processes of the criminal justice system. Topics include history, structure, functions, and philosophy of the criminal justice system and their relationship to life in our society. Upon completion, students should be able to define and describe the major system components and their interrelationships and evaluate career options.

CJC 112 Criminology 3 0 3
Prerequisites:
Corequisites: None

This course introduces deviant behavior as it relates to criminal activity. Topics include theories of crime causation; statistical analysis of criminal behavior; past, present, and future social control initiatives; and other related topics. Upon completion, students should be able to explain and discuss various theories of crime causation and societal response.

CJC 113 Juvenile Justice 3 0 3
Prerequisites:
Corequisites: None

This course covers the juvenile justice system and related juvenile issues. Topics include an overview of the juvenile justice system, treatment and prevention programs, special areas and laws unique to juveniles, and other related topics. Upon completion, students should be able to identify/discuss juvenile court structure/procedures, function and jurisdiction of juvenile agencies, processing/detention of juveniles, and case disposition.

CJC 114 Investigative Photography 1 2 2
Prerequisites:
Corequisites: None

This course covers the operation of various photographic equipment and its application to criminal justice. Topics include using various cameras, proper exposure of film, developing film/prints, and preparing photographic evidence. Upon completion, students should be able to demonstrate and explain the role of photography and proper film exposure and development techniques.

CJC 120 Interviews/Interrogations 1 2 2
Prerequisites:
Corequisites: None

This course covers basic and special techniques employed in criminal justice interviews and interrogations. Emphasis is placed on the interview/interrogation process, including interpretation of verbal and physical behavior and legal perspectives. Upon completion, students should be able to conduct interviews/interrogations in a legal, efficient, and professional manner and obtain the truth from suspects, witnesses, and victims.

CJC 121 Law Enforcement Operations 3 0 3
Prerequisites:
Corequisites: None

This course introduces fundamental law enforcement operations. Topics include the contemporary evolution of law enforcement operations and related issues. Upon completion, students should be able to explain theories, practices, and issues related to law enforcement operations.

CJC 131 Criminal Law 3 0 3
Prerequisites:
Corequisites: None

This course covers the history/evolution/principles and contemporary applications of criminal law. Topics include sources of substantive law, classification of crimes, parties to crime, elements of crimes, matters of criminal responsibility, and other related topics. Upon completion, students should be able to discuss the sources of law and identify, interpret, and apply the appropriate statutes/elements.

CJC 132 Court Procedure & Evidence 3 0 3
Prerequisites:
Corequisites: None

This course covers judicial structure/process/procedure from incident to disposition, kinds and degrees of evidence, and the rules governing admissibility of evidence in court. Topics include consideration of state and federal courts, arrest, search and seizure laws, exclusionary and statutory rules of evidence, and other related issues. Upon completion, students should be able to identify and discuss procedures necessary to establish a lawful arrest/search, proper judicial procedures, and the admissibility of evidence.

CJC 141 Corrections 3 0 3
Prerequisites:
Corequisites: None

This course covers the history, major philosophies, components, and current pracices and problems of the field of corrections. Topics include historical evolution, functions of the

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various components, alternatives to incarceration, treatment programs, inmate control, and other related topics. Upon completion, students should be able to explain the various components, processes, and functions of the correctional system.

CJC 212 Ethics & Comm Relations 3 0 3
Prerequisites:
Corequisites: None

This course covers ethical considerations and accepted standards applicable to criminal justice organizations and professionals. Topics include ethical systems; social change, values, and norms; cultural diversity; citizen involvement in criminal justice issues; and other related topics. Upon completion, students should be able to apply ethical considerations to the decision-making process in identifiable criminal justice situations.

CJC 213 Substance Abuse 3 0 3
Prerequisites:
Corequisites: None

This course is a study of substance abuse in our society. Topics include the history and classifications of drug abuse and the social, physical, and psychological impact of drug abuse. Upon completion, students should be able to identify various types of drugs, their effects on human behavior and society, and treatment modalities.

CJC 214 Victimology 3 0 3
Prerequisites:
Corequisites: None

This course introduces the study of victims. Emphasis is placed on roles/characteristics of victims, victim interaction with the criminal justice system and society, current victim assistance programs, and other related topics. Upon completion, students should be able to discuss and identify victims, the uniqueness of victims' roles, and current victim assistance programs.

CJC 215 Organization & Administration 3 0 3
Prerequisites:
Corequisites: None

This course introduces the components and functions of organization and administration as it applies to the agencies of the criminal justice system. Topics include operations/functions of organizations; recruiting, training, and retention of personnel; funding and budgeting; communications; span of control and discretion; and other related topics. Upon completion, students should be able to identify and discuss the basic components and functions of a criminal justice organization and its administrative operations.

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CJC 221 Investigative Principles 3 2 4
Prerequisites:
Corequisites: None

This course introduces the theories and fundamentals of the investigative process. Topics include crime scene/incident processing, information gathering techniques, collection/preservation of evidence, preparation of appropriate reports, court presentations, and other related topics. Upon completion, students should be able to identify, explain, and demonstrate the techniques of the investigative process, report preparation, and courtroom presentation.

CJC 222 Criminalistics 3 0 3
Prerequisites:
Corequisites: None

This course covers the functions of the forensic laboratory and its relationship to successful criminal investigations and prosecutions. Topics include advanced crime scene processing, investigative techniques, current forensic technologies, and other related topics. Upon completion, students should be able to identify and collect relevant evidence at simulated crime scenes and request appropriate laboratory analysis of submitted evidence.

CJC 231 Constitutional Law 3 0 3
Prerequisites:
Corequisites: None

The course covers the impact of the Constitution of the United States and its amendments on the criminal justice system. Topics include the structure of the Constitution and its amendments, court decisions pertinent to contemporary criminal justice issues, and other related topics. Upon completion, students should be able to identify/discuss the basic structure of the United States Constitution and the rights/procedures as interpreted by the courts.

CJC 250 Forensic Biology 1 2 2
Prerequisites:
Corequisites: BIO 110 or BIO 111

This course covers important biological principles that are applied in the crime laboratory. Topics include forensic toxicology, forensic serology, microscopy, and DNA typing analysis, with an overview of organic and inorganic analysis. Upon completion, students should be able to articulate how a crime laboratory processes physical evidence submitted by law enforcement agencies.

COE 111 Co-op Work Exp I 0 10 1
Prerequisites:
Corequisites:

This course provides work experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with

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related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

COE 112 Co-op Work Exp I 0 20 2
Prerequisites: None
Corequisites: None

This course provides work experience with a college approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

COE 113 Co-op Work Exp I 0 30 3
Prerequisite: None
Corequisite: None

This course provides work experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

COE 115 Work Exp Seminar I 1 0 1
Prerequisites:
Corequisites: COE 111, COE 112, COE 113, or COE 114

This course description may be written by the individual colleges.

COE 121 Co-op Work Exp II 0 10 1
Prerequisites:
Corequisites:

This course provides work experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

COE 131 Co-op Work Exp III 0 10 1
Prerequisites:
Corequisites:

This course provides work experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

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COM 110 - Intro to Communication 3 0 3
Prerequisite: ENG 095 or reading placement score of 42 or higher

This course provides an overview of the basic concepts of communication and the skills necessary to communicate in various contexts. Emphasis is placed on communication theories and techniques used in interpersonal group, public, intercultural, and mass communication situations. Upon completion, students should be able to explain and illustrate the forms and purposes of human communication in a variety of contexts.

COM 231 - Public Speaking 3 0 3
Prerequisite: ENG 095 or reading placement score of 42 or higher.

This course provides instruction and experience in preparation and delivery of speeches within a public setting and group discussion. Emphasis is placed on research, preparation, delivery, and evaluation of informative, persuasive, and special occasion public speaking. Upon completion, students should be able to prepare and deliver well-organized speeches and participate in group discussion with appropriate audiovisual support.

COS 111 Cosmetology Concepts I 4 0 4
Prerequisites: None
Corequisites: COS 112

This course introduces basic cosmetology concepts. Topics include safety, first aid, sanitation, bacteriology, anatomy, diseases and disorders, hygiene, product knowledge, chemistry, ethics, manicures, and other related topics. Upon completion, students should be able to safely and competently apply cosmetology concepts in the salon setting.

COS 112 Salon I 0 24 8
Prerequisite: None
Corequisite: COS 111

This course introduces basic salon services. Topics include scalp treatments, shampooing, rinsing, hair color, design, haircutting, permanent waving, pressing, relaxing, wigs, and other related topics. Upon completion, students should be able to safely and competently demonstrate salon services.

COS 113 Cosmetology Concepts II 4 0 4
Prerequisites: None
Corequisites: COS 114

This course covers more comprehensive cosmetology concepts. Topics include safety, product knowledge, chemistry, manicuring, chemical restructuring, and hair coloring. Upon completion, students should be able to safely and competently apply these cosmetology concepts in the salon setting.

	Class	Lab	Credit	Clinical
COS 114 Salon II	0	24	8	

Prerequisites: None
Corequisites: COS 113

This course provides experience in a simulated salon setting. Topics include basic skin care, manicuring, nail application, scalp treatments, shampooing, rinsing, hair color, design, haircutting, chemical restructuring, pressing, wigs, and other related topics. Upon completion, students should be able to safely and competently demonstrate these salon services.

COS 115 Cosmetology Concepts III	4	0	4	

Prerequisite: None
Corequisite: COS 116

This course covers more comprehensive cosmetology concepts. Topics include safety, product knowledge, salon management, salesmanship, skin care, electricity/light therapy, wigs, thermal hair styling, lash and brow tinting, superfluous hair removal, and other related topics. Upon completion, students should be able to safely and competently apply these cosmetology concepts in the salon setting.

COS 116 Salon III	0	12	4	

Prerequisite: None
Corequisite: COS 115

This course provides comprehensive experience in a simulated salon setting. Emphasis is placed on intermediate-level of skin care, manicuring, scalp treatments, shampooing, hair color, design, haircutting, chemical restructuring, pressing, and other related topics. Upon completion, students should be able to safely and competently demonstrate these salon services.

COS 117 Cosmetology Concepts IV	2	0	2	

Prerequisite: None
Corequisite: COS 118

This course covers advanced cosmetology concepts. Topics include chemistry and hair structure, advanced cutting and design, and an overview of all cosmetology concepts in preparation for the licensing examination. Upon completion, students should be able to demonstrate an understanding of these cosmetology concepts and meet program completion requirements.

COS 118 Salon IV	0	21	7	

Prerequisites: COS 114 or COS 116
Corequisites: COS 117

This course provides advanced experience in a simulated salon setting. Emphasis is placed on efficient and competent delivery of all salon services in preparation for the licensing examination and employment. Upon completion, students should be able to demonstrate competence in program requirements and the areas covered on the Cosmetology Licensing Examination and meet entry-level employment requirements.

	Class	Lab	Credit	Clinical
CSC 133 C Programming	2	3	3	

Prerequisites:
Corequisites: CIS 111 or Instructor Approval

This course introduces computer programming using the C programming language. Topics include input/output operations, sequence, selection, iteration, arithmetic operations, arrays tables, pointers, and other related topics. Upon completion, students should be able to design, code, test, and debug C language programs.

CSC 134 C++ Programming	2	3	3	

Prerequisites: CSC 133
Corequisites: None

This course introduces object-oriented computer programming using the C++ programming language. Topics include input/output operations, iteration, arithmetic operations, arrays, pointers, filters, and other related topics. Upon completion, students should be able to design, code, test, and debug C++ language programs. In addition the student will design object-oriented programs and learn how object oriented design is used in current software application programming.

CSC 139 Visual BASIC Programming	2	3	3	

Prerequisites:
Corequisites: None

This course introduces event-driven computer programming using the Visual BASIC programming language. Topics include input/output operations, sequence, selection, iteration, arithmetic operations, arrays, forms, sequential files, and other related topics. Upon completion, students should be able to design, code, test, and debug Visual BASIC language programs.

CSC 248 Adv Internet Progr	2	3	3	

Prerequisites: CSC 134 or CSC 140 or CSC 141
Corequisites: None

This course covers advanced programming skills required to design Internet applications. Emphasis is placed on programming techniques required to support network applications. Upon completion, students should be able to design, code, debug, and document network-based programming solutions to various real-world problems using an appropriate programming language.

CTC 111 Basic Chemistry I	4	6	7	

Prerequisites:
Corequisites: MAT 121

This course introduces the basic principles of chemistry with emphasis on applications to chemical technology. Topics include measurement, elements, compounds, moles, solutions, reactions, gases, pH, and basic laboratory tools, techniques, and safety. Upon completion, students should be able

Class Lab Credit Clinical

to demonstrate an understanding of basic chemical calculations and routine laboratory procedures.

CTC 112 Basic Chemistry II 4 6 7
Prerequisites: CTC 111
Corequisites: None

This course is a continuation of CTC 111 and introduces solubility, element groups, and industrial chemistry tools and procedures. Topics include solubility products, element families, industrial chemical equipment, and basic laboratory tools, techniques, and safety. Upon completion, students should be able to demonstrate an understanding of basic chemical calculations and routine laboratory procedures.

CTC 120 Organic Chemistry I 2 0 2
Prerequisites: CTC 111
Corequisites: None

This course surveys the nomenclature and properties of organic functional groups with emphasis on applications to chemical technology. Topics include aliphatic and aromatic hydrocarbons, alcohols, ethers, aldehydes and ketones, and acids and acid derivatives, including their infrared spectra. Upon completion, students should be able to name and identify example compounds from these functional groups.

CTC 140 Unit Processes 1 10 6
Prerequisites: CTC 120
Corequisites: None

This course introduces a chemical technology "real world" laboratory experience. Topics include distillation, reflux, and extraction; column, TLC, GL, LC, and ion exchange chromatography; and IR, UV, visible, AA, and AE spectroscopy. Upon completion, students should be able to demonstrate competence in the laboratory techniques presented.

CTC 220 Organic Chemistry II 2 6 5
Prerequisites: CTC 120 and CTC 140
Corequisites: None

This course surveys the preparation, reactions, and analysis of organic compounds. Topics include the preparation and reactions of all the organic functional groups, including IR, UV, RI, GC, and LC spectrographic analysis. Upon completion, students should be able to identify organic reaction products and utilize IR, UV, RI, GC, and LC spectroscopy to characterize organic compounds.

CTC 230 Organic Chemistry III 2 6 5
Prerequisites: CTC 220
Corequisites: None

This course surveys amines, amides, polymers, biochemicals, and advanced spectroscopic and chromatographic techniques. Topics include nitrogen compounds, polymers, stereochemistry, carbohydrates, lipids, amino acids, proteins, enzymes, and nucleic acids and NMR spectroscopy and gas chromatography. Upon completion, students should be able to recognize biologically active compounds, describe their activity, and use specific analytical schemes for their identification.

CTC 240 Industrial Analysis I 2 6 5
Prerequisites: CTC 140
Corequisites: None

This course covers qualitative and quantitative chemical analysis for selected inorganic ions. Emphasis is placed on inorganic qualitative and quantitative analysis methods which utilize titrations, gravimetric analysis, and UV, AA, and AE spectroscopy. Upon completion, students should be able to carry out all analytical schemes presented, including all necessary calculations.

CTC 250 Industrial Analysis II 2 6 5
Prerequisites: CTC 240
Corequisites: None

This course covers quantitative chemical analysis for selected inorganic ions with emphasis on analysis of natural waters. Topics include the sources, utilization, analysis, and treatment of water. Upon completion, students should be able to carry out all analytical schemes presented, including all necessary calculations.

CUL 110 Sanitation & Safety 2 0 2
Prerequisites:
Corequisites: None

This course introduces the basic principles of sanitation and safety and their relationship to the hospitality industry. Topics include personal hygiene, sanitation and safety regulations, use and care of equipment, the principles of food-borne illness, and other related topics. Upon completion, students should be able to demonstrate an understanding of sanitation and safety procedures in the hospitality industry.

CUL 110A Sanitation & Safety Lab 0 2 1
Prerequisites:
Corequisites: CUL 110

This course is a laboratory to accompany CUL 110. Emphasis is placed on practical experiences that enhance the materials presented in CUL 110. Upon completion, students should be able to demonstrate practical applications of sanitation and safety procedures in the hospitality industry.

CUL 120 Purchasing 2 0 2
Prerequisites:
Corequisites: None

This course covers purchasing for hotels and restaurants. Emphasis is placed on procurement, yield tests, inventory control, specification, planning, forecasting, market trends, terminology, cost controls, pricing, and foodservice ethics.

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Upon completion, students should be able to apply effective purchasing techniques based on the end-use of the product.

CUL 120A Purchasing Lab 0 2 1
Prerequisites:
Corequisites: CUL 120

This course is a laboratory to accompany CUL 120. Emphasis is placed on practical experiences that enhance the materials presented in CUL 120. Upon completion, students should be able to demonstrate practical applications of purchasing within in the hospitality industry.

CUL 125 Hospitality Info Sys 1 2 2
Prerequisites:
Corequisites: None

This course introduces hospitality and food service information systems. Topics include planning, cost controls, forecasting, inventory control, recipe control, production control, and nutritional analysis. Upon completion, students should be able to demonstrate competence in utilizing contemporary information application systems in a hospitality setting.

CUL 130 Menu Design 2 0 2
Prerequisites: None
Corequisites: None

This course introduces menu design. Topics include development of standardized recipes, layout, nutritional concerns, product utilization, demographics, and customer needs. Upon completion, students should be able to write, lay out, and produce effective menus for a variety of hospitality settings.

CUL 135 Food & Beverage Service 2 0 2
Prerequisite
Corequisites None

This course covers the practical skills and knowledge for effective food and beverage service in a variety of settings. Topics include reservations, greeting and service of guests, styles of service, handling complaints, and sales and merchandising. Upon completion, students should be able to demonstrate competence in human relations and technical skills required in the service of foods and beverages.

CUL 135A Food & Beverage Serv Lab 0 2 1
Prerequisites:
Corequisites: CUL 135

This course is a laboratory to accompany CUL 135. Emphasis is placed on practical experiences that enhance the materials presented in CUL 135. Upon completion, students should be able to demonstrate practical applications of skills required in the service of foods and beverages.

Class Lab Credit Clinical

CUL 140 Basic Culinary Skills 2 6 5
Prerequisites:
Corequisites: None

This course introduces the fundamental concepts, skills, and techniques involved in basic cookery. Emphasis is placed on recipe conversion, measurements, terminology, knife skills, safe food handling, cooking methods, flavorings, seasonings, stocks/sauces/soups, and other related topics. Upon completion, students should be able to exhibit the basic cooking skills used in the food service industry.

CUL 150 Food Science 1 2 2
Prerequisites: None
Corequisites: None

This course covers the chemical and physical changes in foods that occur with cooking, handling, and processing. Topics include heat transfer and its effect on color, flavor, and texture; and emulsification, protein coagulation, leavening agents, viscosity, and gel formation. Upon completion, students should be able to demonstrate an understanding of the principles covered as they apply to food preparation in an experimental setting.

CUL 160 Baking I 1 4 3
Prerequisite: None
Corequisite: None

This course covers basic ingredients, weights and measures, baking terminology, and formula calculations. Topics include yeast-raised products, quick breads, pastry dough, various cakes and cookies, and appropriate filling and finishing techniques. Upon completion, students should be able to prepare and evaluate baked products.

CUL 170 Garde-Manger I 1 4 3
Prerequisites: None
Corequisites: None

This course introduces basic cold food preparation techniques and pantry production. Topics include salads, sandwiches, appetizers, dressings, basic garnishes, cheeses, cold sauces, and related food items. Upon completion, students should be able to lay out a basic cold food display and exhibit an understanding of the cold kitchen and its related terminology.

CUL 180 Internat & Amer Cuisine 1 8 5
Prerequisite: CUL 140
Corequisite: None

This course provides practical experience in the planning, preparation, and service of representative foods from different countries and regions of America. Emphasis is placed on eating habits, indigenous foods and customs, nutritional concerns, and traditional equipment. Upon completion, students should be able to research and execute international and domestic menus.

	Class	Lab	Credit	Clinical
CUL 210 Food Service for Spec Pop	1	8	5	

Prerequisite: None
Corequisite: None

This course covers nutrition and menu planning principles, food preparation, and food management skills needed to provide meals to special populations. Topics include food preparation for child care, geriatric, and school settings. Upon completion, students should be able to plan, organize, and prepare appealing and nutritious meals for special populations within appropriate guidelines.

CUL 214 Wine Appreciation	1	2	2	

Prerequisites: HRM 225
Corequisites: None

This course provides comprehensive and detailed information about wine from all the major wine producing countries. Emphasis is placed on the history of wine, production characteristics, laws, and purchasing and storing requirements. Upon completion, students should be able to determine what wines compliment various cuisines and particular tastes.

CUL 220 Food Service for Spec Ops	1	8	5	

Prerequisites:
Corequisites: None

This course covers menu planning principles, food preparation, food procurement, and food management skills needed to provide appealing and profitable food service in special operations. Topics include fast-food cookery, convenience-store food service, supermarkets, delicatessens, and take-out venue. Upon completion, students should be able to plan, organize, and prepare food service items for special operations.

CUL 240 Adv Culinary Skills	1	8	5	

Prerequisites: CUL 140
Corequisites: None

This course is a continuation of CUL 140. Emphasis is placed on meat fabrication and butchery; vegetable, starch, and protein cookery; compound sauces; plate presentation; breakfast cookery; and quantity food preparation. Upon completion, students should be able to plan, execute, and successfully serve entrees with complementary side items.

CUL 250 Classical Cooking	1	8	5	

Prerequisites: CUL 140 or CUL 240
Corequisites: None

This course reinforces the classical culinary kitchen as established by Escoffier. Topics include the working Grand Brigade of the kitchen, table d'hote menus, signature dishes, alfresco dining, exhibition cooking, and classical banquets. Upon completion, students should be able to demonstrate competence in food preparation in a classical/upscale restaurant or banquet setting.

	Class	Lab	Credit	Clinical
CUL 260 Baking II	1	4	3	

Prerequisite: CUL 160
Corequisite: None

This course is a continuation of CUL 160. Topics include specialty breads, pastillage, marzipan, chocolate, pulled-sugar, confections, classic desserts, pastries, and cake decorating. Upon completion, students should be able to demonstrate pastry preparation and plating, cake decorating, and showpiece production skills.

CUL 270 Garde-Manager II	1	4	3	

Prerequisites: CUL 170
Corequisites: None

This course is a continuation of CUL 170. Topics include pates, terrines, galantines, ice and tallow carving, chaud-froid/aspic work, charcuterie, smoking, canapes, hors d'oeuvres, and related food items. Upon completion, students should be able to design, set up, and evaluate a catering function to include a classical cold buffet with appropriate show pieces.

CUL 280 Pastry & Confections	1	4	3	

Prerequisite: CUL 160
Corequisite: None

This course covers the operations of the pastry shop, emphasizing advanced techniques in the production of continental and classical pastries. Topics include advanced work in French pastries, hot and cold desserts, and decorative display pieces. Upon completion, students should be able to plan, execute, and evaluate dessert platters, individual plated desserts, and show pieces.

DDF 211 Design Drafting I	2	6	4	

Prerequisites: DFT 112
Corequisites: None

This course emphasizes design processes for finished products. Topics include data collection from manuals and handbooks, efficient use of materials, design sketching, specifications, and vendor selection. Upon completion, students should be able to research and plan the design process for a finished product. This course emphasizes design as it applies to power transmission components.

DDF 212 Design Drafting II	1	6	4	

Prerequisites: DDF 211
Corequisites: None

This course stresses the integration of various drafting and design practices. Emphasis is placed on the creation of an original design. Upon completion, students should be able to apply drafting and design procedures to a design project of their choosing. This course will emphasize extensive use of CAD 3D drawing and solid modeling in the design process.

	Class	Lab	Credit	Clinical
DDF 213 Design Drafting III	1	6	4	

Prerequisites: DDF 212
Corequisites: None

This course provides an opportunity to produce all the documentation needed to complete a project for the manufacture of a product. Topics include materials, manufacturing processes, analysis, production drawings, calculations, and specifications. Upon completion, students should be able to research and produce all information needed to complete a project for manufacture.

	Class	Lab	Credit	Clinical
DDF 214 Tool Design	2	4	4	

Prerequisites: DDF 212
Corequisites: None

This course introduces the principles of tool design. Topics including gaging, die work, and cost analysis using available catalogs and studies using manufacturing processes. Upon completion, students should be able to use catalogs to identify vendors and prepare working drawings for tooling.

	Class	Lab	Credit	Clinical
DEN 101 Preclinical Procedures	4	6	7	

Prerequisites: Enrollment in Dental Assisting Program
Corequisites: DEN 111

This course provides instruction in procedures for the clinical dental assistant as specified by the North Carolina Dental Practice Act. Emphasis is placed on orientation to the profession, infection control techniques, instruments, related expanded functions, and diagnostic, operative, and specialty procedures. Upon completion, students should be able to demonstrate proficiency in clinical dental assisting procedures. *This is a diploma-level course.*

	Class	Lab	Credit	Clinical
DEN 102 Dental Materials	3	4	5	

Prerequisites: Enrollment in Dental Assisting Program
Corequisites: None

This course provides instruction in identification, properties, evaluation of quality, principles, and procedures related to manipulation and storage of operative and specialty dental materials. Emphasis is placed on the understanding and safe application of materials used in the dental office and laboratory. Upon completion, students should be able to demonstrate proficiency in the laboratory and clinical application of routinely used dental materials. *This is a diploma-level course.*

	Class	Lab	Credit	Clinical
DEN 103 Dental Sciences	2	0	2	

Prerequisites: DEN 110
Corequisites: None

This course is a study of oral pathology, pharmacology, and dental office emergencies. Topics include oral pathological conditions, dental therapeutics, and management of emergency situations. Upon completion, students should be able to recognize abnormal oral conditions, identify classifications, describe actions and effects of commonly prescribed drugs, and respond to medical emergencies. *This is a diploma-level course.*

	Class	Lab	Credit	Clinical
DEN 104 Dental Health Education	2	2	3	

Prerequisites: DEN 101 and DEN 111
Corequisites: DEN 106

This course covers the study of preventive dentistry to prepare dental assisting students for the role of dental health educator. Topics include etiology of dental diseases, preventive procedures, and patient education theory and practice. Upon completion, students should be able to demonstrate proficiency in patient counseling and oral health instruction in private practice or public health settings. *This is a diploma-level course.*

	Class	Lab	Credit	Clinical
DEN 105 Practice Management	2	0	2	

Prerequisites: DEN 110
Corequisites: None

This course provides a study of principles and procedures related to management of the dental practice. Emphasis is placed on maintaining clinical and financial records, patient scheduling, and supply and inventory control. Upon completion, students should be able to demonstrate fundamental skills in dental practice management. *This is a diploma-level course.*

	Class	Lab	Credit	Clinical
DEN 106 Clinical Practice I	1	12	5	

Prerequisites: DEN 101 and DEN 111
Corequisites: DEN 102, DEN 104, and DEN 112

This course is designed to provide experience assisting in a clinical setting. Emphasis is placed on the application of principles and procedures of four-handed dentistry and laboratory and clinical support functions. Upon completion, students should be able to utilize classroom theory and laboratory and clinical skills in a dental setting. *This is a diploma-level course.*

	Class	Lab	Credit	Clinical
DEN 107 Clinical Practice II	1	12	5	

Prerequisites: DEN 106
Corequisites: None

This course is designed to increase the level of proficiency in assisting in a clinical setting. Emphasis is placed on the application of principles and procedures of four-handed dentistry and laboratory and clinical support functions. Upon completion, students should be able to combine theoretical and ethical principles necessary to perform entry-level skills including functions delegable to a DA II. *This is a diploma-level course.*

	Class	Lab	Credit	Clinical
DEN 110 Orofacial Anatomy	2	2	3	

Prerequisites:
Corequisites: None

This course introduces the structures of the head, neck, and oral cavity. Topics include tooth morphology, head and neck anatomy, histology, and embryology. Upon completion, stu-

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dents should be able to relate the identification of normal structures and development to the practice of dental assisting and dental hygiene.

DEN 111 Infection/Haz Control 2 0 2
Prerequisites:
Corequisites: None

This course introduces the infection and hazard control procedures necessary for the safe practice of dentistry. Topics include microbiology, practical infection control, sterilization and monitoring, chemical disinfectants, aseptic technique, infectious diseases, OSHA standards, and applicable North Carolina laws. Upon completion, students should be able to understand infectious diseases, disease transmission, infection control procedures, biohazard management, OSHA standards, and applicable North Carolina laws.

DEN 112 Dental Radiography 2 3 3
Prerequisites: Enrollment in the Dental Hygiene or Dental Assisting programs
Corequisites: DEN 110 and DEN 111

This course provides a comprehensive view of the principles and procedures of radiology as they apply to dentistry. Topics include techniques in exposing, processing, and evaluating radiographs, as well as radiation safety, quality assurance, and legal issues. Upon completion, students should be able to demonstrate proficiency in the production of diagnostically acceptable radiographs using appropriate safety precautions.

DES 110 Architectural Graphics 0 6 2
Prerequisites:
Corequisites: None

This course introduces basic drafting skills and techniques. Emphasis is placed on the use of drafting equipment, lettering, dimensioning, elevations, sections, construction details, and actual fixture sizes as related to interior design situations. Upon completion, students should be able to complete working drawings skillfully utilizing principles of drafting.

DES 111 Creative Problem Solving 2 0 2
Prerequisites:
Corequisites: None

This course is designed to improve conceptual abilities as applied to problems involved with creating practical furniture designs. Emphasis is placed on the awareness of creative thinking techniques that are involved with producing a workable design in an innovative fashion. Upon completion, students should be able to apply creative thinking techniques to find innovative solutions to furniture problems.

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DES 120 CAD for Interior Design 0 6 2
Prerequisites: DES 110
Corequisites: None

This course introduces basic computer-aided design and drafting skills and techniques within interior design applications. Emphasis is placed on the most common computer commands used in architectural drafting and design to draw, edit, manipulate layers, and create reusable drawings. Upon completion, students should be able to use specific computer applications to complete drawings and plot/print.

DES 125 Graphic Presentation I 0 6 2
Prerequisites:
Corequisites: None

This course introduces graphic presentation techniques for communicating ideas. Topics include drawing, perspective drawing, and wet and dry media. Upon completion, students should be able to produce a pictorial presentation.

DES 135 Prin & Elem of Design I 2 4 4
Prerequisites:
Corequisites: None

This course introduces the basic concepts and terminology of design as they relate to the design profession. Topics include line, pattern, space, mass, shape, texture, color, unity, variety, rhythm, emphasis, balance, proportion, scale, and function. Upon completion, students should be able to demonstrate an understanding of the principles covered through hands-on application.

DES 136 Prin & Elem of Design II 2 4 4
Prerequisites: DES 135
Corequisites: None

This course provides continued study of design principles introduced in DES 135. Emphasis is placed on color theory, pattern, and texture as used in interiors as well as an investigation of the psychology of color. Upon completion, students should be able to originate a color program for interiors.

DES 210 Bus Prac/Interior Design 2 0 2
Prerequisites:
Corequisites: None

This course introduces contemporary business practices for interior design. Topics include employment skills, business formations, professional associations, preparation of professional contracts and correspondence, and means of compensation. Upon completion, students should be able to describe the basic business formations and professional associations and compose effective letters and contracts.

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DES 220 Intro to Interior Design 1 6 3
Prerequisites:DES 135 and ARC 111 or DES 110 or DFT 115
Corequisites: None

This course covers the basic principles of design as they relate specifically to interior design, furniture arrangement, wall composition, color, furnishings, collages, and illustration. Emphasis is placed on spatial relationships, craftsmanship, and visual presentation techniques. Upon completion, students should be able to arrange furnishings in rooms for various purposes, select furnishings and colors, and illustrate ideas graphically.

DES 225 Textiles/Fabrics 2 2 3
Prerequisites:
Corequisites: None

This course includes the study of woven and non-woven fabrics for interiors. Topics include characteristics of fibers, yarns, weaving, felting, and knitting; processing of leather; and adorning and finishing of interior fabrics. Upon completion, students should be able to recognize and use correct terminology for upholstery, window treatments, and rugs/carpets with regard to flammability, performance, and durability.

DES 230 Residential Design I 1 6 3
Prerequisites:
Corequisites: None

This course includes principles of interior design for various residential design solutions. Emphasis is placed on visual presentation and selection of appropriate styles to meet specifications. Upon completion, students should be able to complete scaled floorplans, elevations, specifications, color schemes and fabrics, and finishes and furniture selection.

DES 231 Residential Design II 1 6 3
Prerequisites: DES 230
Corequisites: None

This course provides advanced projects with a client profile that utilizes the skills developed in DES 230. Emphasis is placed on a total concept and the presentation of appropriate and creative design solutions. Upon completion, students should be able to complete a detailed floorplan, space planning, furniture plan, specifications, program schedules, finishes, and detailed window treatments.

DES 235 Products 2 2 3
Prerequisites:
Corequisites: None

This course provides an overview of interior finishing materials and the selection of quality upholstery and case goods. Topics include hard and resilient floor coverings; wall coverings and finishes; ceilings, moldings, and furniture construction techniques; and other interior components. Upon completion, students should be able to recognize and use correct terminology, select appropriate materials for interior surfaces, and choose furniture based on sound construction.

DES 240 Non-Residential Design I 1 6 3
Prerequisites: DES 220
Corequisites: None

This course introduces commercial/contract design including retail, office, institutional, restaurant, and hospitality design. Emphasis is placed on ADA requirements, building codes and standards, space planning, and selection of appropriate materials for non-residential interiors. Upon completion, students should be able to analyze and design introductory non-residential projects using graphic presentation concepts.

DES 241 Non-Residential Design II 1 6 3
Prerequisites: DES 240
Corequisites: None

This course provides an in-depth study of non-residential design exploring more comprehensive design solutions such as health care facilities, furniture gallery design, and large office complexes. Emphasis is placed on design of commercial interiors and suitability of materials to meet ADA requirements, codes, and standards. Upon completion, students should be able to design non-residential spaces meeting ADA requirements and select furniture, materials, fabrics, and accessories meeting codes and flammability standards.

DES 245 Sales & Mkt/Int Design 2 0 2
Prerequisites:
Corequisites: None

This course introduces retail/wholesale sales and marketing concepts, product distribution, and terminology for the interior design profession. Topics include current retail/wholesale marketing techniques, sales terminology, acceptable business practices, and basic retail/wholesale computations. Upon completion, students should be able to demonstrate knowledge of specific design marketing and sales organizations and techniques and compute basic mark-ups and mark-downs.

DES 255 History/Int & Furn I 3 0 3
Prerequisites:
Corequisites: None

This course covers interiors, exteriors, and furnishings from ancient Egypt through French Neo-Classicism. Emphasis is placed on vocabulary, chronology, and style recognition. Upon completion, students should be able to classify and date interior and exterior architecture and furnishings and be conversant with pertinent vocabulary.

	Class	Lab	Credit	Clinical
DES 280 Codes & Stand /Int Des	3	0	3	

Prerequisites:
Corequisites: None

This course introduces institutional and residential building codes as they relate to interior design. Topics include state and federal codes and standards related to physically disadvantaged access, fire codes, space allocation codes, and bathroom facility codes. Upon completion, students should be able to research and interpret state and federal building codes.

DES 285 Capstone/Interior Design	2	6	4	

Prerequisites: DES 210, DES 230, and DES 240
Corequisites: None

This course provides additional studio time to investigate areas of special interest, upgrade weaknesses, and/or capitalize on strengths. Topics include a broad range of options, both residential and non-residential, combining individual research and instructional guidance. Upon completion, students should be able to complete the graphics, client folder, and all schedules for a professional project.

DFT 100 Marine Drafting	1	2	2	

Prerequisites:
Corequisites: BTB 101

This course introduces blueprint reading, sketching, marine drafting equipment, and the lines plan. Topics include utilization of mechanical drafting tools, blueprint lines, pictorial sketching, blueprint reading, and manually drawing plans for boats from tables of offsets. Upon completion, students should be able to create pictorial sketches, make materials lists from blueprints, expand transoms, and demonstrate an understanding of lines plans.

DFT 111 Technical Drafting I	2	6	4	

Prerequisites:
Corequisites: None

This course introduces basic drafting skills, equipment, and applications. Topics include sketching, measurements, lettering, dimensioning, geometric construction, orthographic projections and pictorials drawings, sections, and auxiliary views. Upon completion, students should be able to understand and apply basic drawing principles and practices.

DFT 112 Technical Drafting II	2	6	4	

Prerequisites: DFT 111
Corequisites: None

This course provides for advanced drafting practices and procedures. Topics include detailed working drawings, hardware, fits and tolerances, assembly and sub-assembly, geometric dimensioning and tolerancing, intersections, and developments. Upon completion, students should be able to produce detailed working drawings.

	Class	Lab	Credit	Clinical
DFT 151 CAD I	2	3	3	

Prerequisites:
Corequisites: None

This course introduces CAD software as a drawing tool. Topics include drawing, editing, file management, and plotting. Upon completion, students should be able to produce and plot a CAD drawing.

DFT 152 CAD II	2	3	3	

Prerequisites: DFT 151
Corequisites: None

This course is a continuation of DFT 151. Topics include advanced two-dimensional, three-dimensional, and solid modeling and extended CAD applications. Upon completion, students should be able to generate and manage CAD drawings and models to produce engineering documents.

DFT 211 Gears, Cams, & Pulleys	1	3	2	

Prerequisites: DFT 111 and MAT 121
Corequisites: None

This course introduces the principles of motion transfer. Topics include gears, cams, pulleys, and drive components. Upon completion, students should be able to solve problems and produce drawings dealing with ratios.

DFT 221 Electrical Drafting	2	6	4	

Prerequisites: DFT 111 and DFT 151
Corequisites: None

This course covers the practices used for making electrical drawings. Emphasis is placed on symbol identification and various types of electrical diagrams. Upon completion, students should be able to properly utilize electrical symbols in the construction of various electrical diagrams. Symbols for piping and welding will also be covered.

DIE 110 Diesel Engines	3	9	6	

Prerequisites:
Corequisites: None

This course introduces theory, design, terminology, and operating adjustments for diesel engines. Emphasis is placed on safety, theory of operation, inspection, measuring, and rebuilding diesel engines according to factory specifications. Upon completion, students should be able to measure, diagnose problems, and repair diesel engines.

DIE 112 Diesel Electrical Sys	3	6	5	

Prerequisites:
Corequisites: None

This course introduces electrical theory and applications as they relate to diesel powered equipment. Topics include lighting, accessories, safety, starting, charging, instrumentation, and gauges. Upon completion, students should be able to

follow schematics to identify, repair, and test electrical circuits and components.

DIE 114 Power Trains Class 3 Lab 6 Credit 5 Clinical

Prerequisite: None
Corequisite: None

This course introduces power transmission devices. Topics include function and operation of gears, chains, clutches, planetary gears, drive lines, differentials, and transmissions. Upon completion, students should be able to identify, research specifications, repair, and adjust power train components.

DIE 115 Electronic Engines 2 3 3
Prerequisites:
Corequisites: None

This course introduces the principles of electronically controlled diesel engines. Emphasis is placed on testing and adjusting diesel engines in accordance with manufacturers' specifications. Upon completion, students should be able to diagnose, test, and calibrate electronically controlled diesel engines.

DIE 118 Mechanical Orientation 2 0 2
Prerequisite: None
Corequisite: None

This course introduces the care and safe use of power and hand tools. Topics include micrometers, dial indicators, torque wrenches, drills, taps, dies, screw extractors, thread restorers, and fasteners. Upon completion, students should be able to select and properly use tools for various operations.

DIE 120 Intro to Mobile Equipment 1 2 2
Prerequisite: None
Corequisite: None

This course introduces the functions and systems of modern medium and heavy duty vehicles. Topics include use of technical manuals, tools and equipment, record keeping, material safety data sheets, and work habit safety. Upon completion, students should be able to use technical manuals, tools, equipment, and material safety data sheets.

DIE 121 Marine Engines 2 6 4
Prerequisites:
Corequisites: None

This course covers two- and four-cycle diesel engines that are used for marine vessel propulsion. Emphasis is placed on construction, design, cooling systems, lubrication systems, and air-intake systems. Upon completion, students should be able to test, troubleshoot, diagnose. and repair marine engine systems. *This course is a unique concentration requirement of the Marine Systems concentration in the Heavy Equipment and Transport Technology program.*

DIE 125 Preventive Maintenance 1 3 2
Prerequisites:
Corequisites: None

This course introduces preventive maintenance practices used on medium and heavy duty vehicles and rolling assemblies. Topics include preventive maintenance schedules, services, DOT rules and regulations, and roadability. Upon completion, students should be able to set up and follow a preventive maintenance schedule as directed by manufacturers.

DIE 128 Med/Heavy Duty Tune-up 1 2 2
Prerequisite: None
Corequisite: None

This course introduces tune-up and troubleshooting according to manufacturers' specifications. Topics include troubleshooting engine systems, tune-up procedures, and use and care of special test tools and equipment. Upon completion, students should be able to troubleshoot, diagnose, and repair engines and components using appropriate diagnostic equipment.

DIE 134 Mechanical Fuel Injection 2 2 3
Prerequisites:
Corequisites: None

This course introduces the principles of mechanical fuel injection. Emphasis is placed on test equipment, component functions, and theory. Upon completion, students should be able to diagnose, service, and repair fuel systems and governors.

DIE 145 Marine Electricity 2 6 4
Prerequisites:
Corequisites: None

This course covers basic DC and AC electrical systems used in marine electrical systems. Topics include installation and wiring of various lighting, electrical instruments, and service generators aboard vessels. Upon completion, students should be able to test, service, and repair marine electrical systems. *This course is a unique concentration requirement of the Marine Systems concentration in the Heavy Equipment and Transport Technology program.*

DIE 147 Marine Power Trains 2 6 4
Prerequisites:
Corequisites: None

This course covers the principles and function of marine power trains. Emphasis is placed on marine gears, drive lines, gear reduction, and installation aboard vessels. Upon completion, students should be able to test, service, and troubleshoot marine power trains. *This course is a unique concentration requirement of the Marine Systems concentration in the Heavy Equipment and Transport Technology program.*

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DIE 229 Brakes & Steering 1 2 2
Prerequisite: None
Corequisite: None

This course introduces the theory and principles of braking and steering in medium and heavy duty vehicles. Topics include wheel and tire problems, frame members, bearings, fifth wheel, coupling systems, and braking systems. Upon completion, students should be able to diagnose, adjust, and repair steering and braking problems on medium and heavy duty vehicles.

DRA 111 Theatre Appreciation 3 0 3
Prerequisite: None.

This course provides a study of the art, craft, and business of the theatre. Emphasis is placed on the audience's appreciation of the work of the playwright, director, actor, designer, producer, and critic. Upon completion, students should be able to demonstrate a vocabulary of theatre terms and to recognize the contributions of various theatre artists.

DRA 211 Theatre History I 3 0 3
Prerequisite: None.

This course covers the development of theatre from its origin to the closing of the British theatre in 1642. Topics include the history, aesthetics, and representative dramatic literature of the period. Upon completion, students should be able to trace the evolution of theatre and recognize the styles and types of world drama.

DRA 212 - Theatre History II 3 0 3
Prerequisite: None.

This course covers the development of theatre from 1660 through the diverse influences which shaped the theatre of the twentieth century. Topics include the history, aesthetics, and representative dramatic literature of the period. Upon completion, students should be able to trace the evolution of theatre and recognize the styles and types of world drama.

ECO 151 Survey of Economics 3 0 3
Prerequisite: Proficiency in reading or a grade of "C" or better

This course introduces basic concepts of micro- and macroeconomics. Topics include supply and demand, optimizing economic behavior, prices and wages, money, interest rates, banking system, unemployment, inflation, taxes, government spending, and international trade. Upon completion, students should be able to explain alternative solutions for economic problems faced by private and government sectors.

ECO 251 Principles of Microeconomics 3 0 3
Prerequisite: Proficiency in reading or a grade of "C" or better in

This course introduces economic analysis of individual, business, and industry choices in the market economy. Topics include the price mechanism, supply and demand, optimizing economic behavior, costs and revenue, market structures, factor markets, income distribution, market failure, and government intervention. Upon completion, students should be able to identify and evaluate consumer and business alternatives in order to efficiently achieve economic objectives.

ECO 252 - Principles of Macroeconomics 3 0 3
Prerequisite: Proficiency in reading or a grade of "C" or better in

This course introduces economic analysis of aggregate employment, income, and prices. Topics include major schools of economic thought; aggregate supply and demand; economic measures, fluctuations, and growth; money and banking; stabilization techniques; and international trade. Upon completion, students should be able to evaluate national economic components, conditions, and alternatives for achieving socioeconomic goals.

EDU 111 Early Childhood Cred I 2 0 2
Prerequisites:
Corequisites: None

This course introduces early childhood education and the role of the teacher in environments that encourage exploration and learning. Topics include professionalism, child growth and development, individuality, family, and culture. Upon completion, students should be able to identify and demonstrate knowledge of professional roles, major areas of child growth and development, and diverse families.

EDU 112 Early Childhood Cred II 2 0 2
Prerequisites:
Corequisites: None

This course introduces developmentally appropriate practices, positive guidance, and standards of health, safety, and nutrition. Topics include the learning environment, planning developmentally appropriate activities, positive guidance techniques, and health, safety, and nutrition standards. Upon completion, students should be able to demonstrate developmentally appropriate activities and positive guidance techniques and describe health/sanitation/nutrition practices that promote healthy environments for children.

EDU 113 Family/Early Child Cred 2 0 2
Prerequisites:
Corequisites: None

This course covers business/professional practices for family early childhood providers, developmentally appropriate practices, positive guidance, and methods of providing a safe and healthy environment. Topics include developmentally appropriate practices; health, safety and nutrition; and business and professionalism. Upon completion, students should be able to develop a handbook of policies, procedures, and practices for a family child care home.

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EDU 116 Intro to Education 3 2 4
Prerequisite: Proficiency in reading or a grade of "C" or better in ENG 095
Corequisite: None

This course introduces the American educational system and the teaching profession. Topics include historical and philosophical foundations of education, contemporary educational trends and issues, curriculum development, and observation and participation in public school classrooms. Upon completion, students should be able to relate classroom observations to the roles of teachers and schools and the process of teacher education. This course has been approved for transfer through the Comprehensive Articulation Agreement.

EDU 131 Child, Family, & Comm 3 0 3
Prerequisites:
Corequisites: None

This course covers the relationships between the families, programs for children/schools, and the community. Emphasis is placed on establishing and maintaining positive collaborative relationships with families and community resources. Upon completion, students should be able to demonstrate strategies for effectively working with diverse families and identifying and utilizing community resources.

EDU 146 Child Guidance 3 0 3
Prerequisites:
Corequisites: None

This course introduces practical principles and techniques for developmentally appropriate guidance. Emphasis is placed on encouraging self-esteem and cultural awareness, effective communication skills, and direct and indirect guidance techniques and strategies. Upon completion, students should be able to demonstrate strategies which encourage positive social interactions, promote conflict resolution, and develop self-control, self-motivation, and self-esteem in children.

EDU 151 Creative Activities 3 0 3
Prerequisites:
Corequisites: None

This course covers creative learning environments, planning and implementing developmentally appropriate experiences, and developing appropriate teaching materials for the classroom. Emphasis is placed on creative activities for children in art, music, movement and physical skills, and dramatics. Upon completion, students should be able to select and evaluate developmentally appropriate learning materials and activities.

EDU 151A Creative Activities Lab 0 2 1
Prerequisites:
Corequisites: EDU 151

This course provides a laboratory component to complement EDU 151. Emphasis is placed on practical experiences that enhance concepts introduced in the classroom. Upon completion, students should be able to demonstrate a practical understanding of the development and implementation of appropriate creative activities.

EDU 153 Health, Safety, & Nutrit 3 0 3
Prerequisites:
Corequisites: None

This course focuses on promoting and maintaining the health and well-being of children. Topics include health and nutritional needs, safe and healthy environments, and recognition and reporting of child abuse and neglect. Upon completion, students should be able to set up and monitor safe indoor and outdoor environments and implement a nutrition education program.

EDU 185 Cognitive & Lang Act 3 0 3
Prerequisites:
Corequisites: None

This course covers methods of developing cognitive and language/communication skills in children. Emphasis is placed on planning the basic components of language and cognitive processes in developing curriculum activities. Upon completion, students should be able to identify, plan, select materials and equipment, and implement and evaluate developmentally appropriate curriculum activities.

EDU 185A Cognitive & Lang Act Lab 0 2 1
Prerequisites:
Corequisites: EDU 185

This course provides a laboratory component to complement EDU 185. Emphasis is placed on practical experiences that enhance concepts introduced in the classroom. Upon completion, students should be able to demonstrate a practical understanding of the development and implementation of appropriate cognitive language activities.

EDU 188 Issues in Early Child Ed 2 0 2
Prerequisites:
Corequisites: None

This course covers topics and issues in early childhood education. Emphasis is placed on current advocacy issues, emerging technology, professional growth experiences, and other related topics. Upon completion, students should be able to list, discuss, and explain current topics and issues in early childhood education.

EDU 221 Children with Sp Needs 3 0 3
Prerequisites: EDU 144 and EDU 145 or PSY 244 and PSY 245
Corequisites: None

This course introduces working with children with special needs. Emphasis is placed on the characteristics and assessment of children and strategies for adapting the home and

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classroom environment. Upon completion, students should be able to recognize atypical development, make appropriate referrals, and work collaboratively to plan, implement, and evaluate inclusion strategies.

EDU 234 Infants, Toddlers, & Twos 3 0 3
Prerequisites:
Corequisites: None

This course covers the skills needed to effectively implement group care for infants, toddlers, and two-year olds. Emphasis is placed on child development and developmentally appropriate practices. Upon completion, students should be able to identify, plan, select materials and equipment, and implement and evaluate a developmentally appropriate curriculum.

EDU 251 Exploration Activities 3 0 3
Prerequisites:
Corequisites: None

This course covers discovery experiences in science, math, and social studies. Emphasis is placed on developing concepts for each area and encouraging young children to explore, discover, and construct concepts. Upon completion, students should be able to discuss the discovery approach to teaching, explain major concepts in each area, and plan appropriate experiences for children.

EDU 251A Exploration Act Lab 0 2 1
Prerequisites:
Corequisites: EDU 251

This course provides a laboratory component to complement EDU 251. Emphasis is placed on practical experiences that enhance concepts introduced in the classroom. Upon completion, students should be able to demonstrate a practical understanding of the development and implementation of appropriate science, math, and social studies activities for children.

EDU 259 Curriculum Planning 3 0 3
Prerequisites: EDU 112, EDU 113, or EDU 119
Corequisites: None

This course covers early childhood curriculum planning. Topics include philosophy, curriculum, indoor and outdoor environmental design, scheduling, observation and assessment, and instructional planning and evaluation. Upon completion, students should be able to assess children and curriculum; plan for daily, weekly, and long-range instruction; and design environments with appropriate equipment and supplies.

EDU 261 Early Childhood Admin I 2 0 2
Prerequisites:
Corequisites: None

This course covers the policies, procedures, and responsibilities for the management of early childhood education programs. Topics include implementation of goals, principles of supervision, budgeting and financial management, and meeting the standards for a NC Child Day Care license. Upon completion, students should be able to develop program goals, explain licensing standards, determine budgeting needs, and describe effective methods of personnel supervision.

EDU 262 Early Childhood Admin II 3 0 0 3

Prerequisite: EDU 261
Corequisite: None

This course provides a foundation for budgetary, financial, and personnel management of the child care center. Topics include budgeting, financial management, marketing, hiring, supervision, and professional development of a child care center. Upon completion, students should be able to formulate marketing, financial management, and fund development plans and develop personnel policies, including supervision and staff development plans.

EGR 131 Intro To Electronics Tech 1 2 2
Prerequisites:
Corequisites: ELC 131

This course introduces the basic skills required for electrical/electronics technicians. Topics include soldering/desoldering, safety practices, test equipment, scientific calculators, AWG wire table, the resistor color code, electronic devices, problem solving, and use of hand tools. Upon completion, students should be able to solder/desolder, operate test equipment, apply problem-solving techniques, and use a scientific calculator.

EGR 285 Design Project 0 4 2
Prerequisites: EGR 131, ELN 131
Corequisites: None

This course provides the opportunity to design and construct an instructor-approved project using previously acquired skills. Emphasis is placed on selection, proposal, design, construction, testing, and documentation of the approved project. Upon completion, students should be able to present and demonstrate operational projects.

ELC 111 Intro to Electricity 2 2 3
Prerequisites:
Corequisites: None

This course introduces the fundamental concepts of electricity and test equipment to non-electrical/electronic majors. Topics include basic DC and AC principles (voltage, resistance, current, impedance); components (resistors, inductors, and capacitors); power; and operation of test equipment. Upon completion, students should be able to construct and analyze simple DC and AC circuits using electrical test equipment.

ELC 112 DC/AC Electricity — Class 3, Lab 6, Credit 5, Clinical
Prerequisites:
Corequisites: None

This course introduces the fundamental concepts of and computations related to DC/AC electricity. Emphasis is placed on DC/AC circuits, components, operation of test equipment; and other related topics. Upon completion, students should be able to construct, verify, and analyze simple DC/AC circuits.

ELC 113 Basic Wiring I — Class 2, Lab 6, Credit 4, Clinical
Prerequisites:
Corequisites: None

This course introduces the care/usage of tools and materials used in electrical installations and the requirements of the National Electrical Code. Topics include NEC, electrical safety, and electrical blueprint reading; planning, layout; and installation of electrical distribution equipment; lighting; overcurrent protection; conductors; branch circuits; and conduits. Upon completion, students should be able to properly install conduits, wiring, and electrical distribution equipment associated with basic electrical installations.

ELC 114 Basic Wiring II — Class 2, Lab 6, Credit 4, Clinical
Prerequisites: ELC 113
Corequisites: None

This course provides additional instruction in the application of electrical tools, materials, and test equipment associated with electrical installations. Topics include the NEC; safety; electrical blueprints; planning, layout, and installation of equipment and conduits; and wiring devices such as panels and overcurrent devices. Upon completion, students should be able to properly install equipment and conduit associated with electrical installations.

ELC 115 Industrial Wiring — Class 2, Lab 6, Credit 4, Clinical
Prerequisites: ELC 113
Corequisites: None

This course covers layout, planning, and installation of wiring systems in industrial facilities. Emphasis is placed on industrial wiring methods and materials. Upon completion, students should be able to install industrial systems and equipment.

ELC 117 Motors and Controls — Class 2, Lab 6, Credit 4, Clinical
Prerequisites: ELC 112 or ELC 131
Corequisites: None

This course introduces the fundamental concepts of motors and motor controls. Topics include ladder diagrams, pilot devices, contactors, motor starters, motors, and other control devices. Upon completion, students should be able to properly select, connect, and troubleshoot motors and control circuits.

ELC 118 National Electrical Code — Class 1, Lab 2, Credit 2, Clinical
Prerequisites:
Corequisites: None

This course covers the use of the current National Electrical Code. Topics include the NEC history, wiring methods, overcurrent protection, materials, and other related topics. Upon completion, students should be able to effectively use the NEC.

ELC 119 NEC Calculations — Class 1, Lab 2, Credit 2, Clinical
Prerequisites:
Corequisites: None

This course covers branch circuit, feeder, and service calculations. Emphasis is placed on sections of the National Electrical Code related to calculations. Upon completion, students should be able to use appropriate code sections to size wire, conduit, and overcurrent devices for branch circuits, feeders, and service.

ELC 125 Diagrams and Schematics — Class 1, Lab 2, Credit 2, Clinical
Prerequisites:
Corequisites: None

This course covers the interpretation of electrical diagrams, schematics, and drawings common to electrical applications. Emphasis is placed on reading and interpreting electrical diagrams and schematics. Upon completion, students should be able to read and interpret electrical diagrams and schematics.

ELC 128 Intro to PLC — Class 2, Lab 3, Credit 3, Clinical
Prerequisites:
Corequisites: None

This course introduces the programmable logic controller (PLC) and its associated applications. Topics include ladder logic diagrams, input/output modules, power supplies, surge protection, selection/installation of controllers, and interfacing of controllers with equipment. Upon completion, students should be able to install PLCs and create simple programs.

ELC 131 DC/AC Circuit Analysis — Class 4, Lab 3, Credit 5, Clinical
Prerequisites:
Corequisites: MAT 121

This course introduces DC and AC electricity with an emphasis on circuit analysis, measurements, and operation of test equipment. Topics include DC and AC principles, circuit analysis laws and theorems, components, test equipment operation, circuit simulation software, and other related topics. Upon completion, students should be able to interpret circuit schematics; design, construct, verify, and analyze DC/AC circuits; and properly use test equipment.

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ELC 135 Electrical Machines I 2 2 3
Prerequisites: ELC 112, ELC 131, or ELC 140
Corequisites: None

This course covers magnetic circuits, transformers, DC/AC generators, and a review of the three-phase circuit fundamentals including power factor. Topics include magnetic terms and calculations, transformer calculations based on primary or secondary equivalent circuits, and generator regulation and efficiency calculations. Upon completion, students should be able to perform regulation and efficiency calculations for DC/AC single- and three-phase transformer and generator circuits. In addition the course represents a continuation of AC including motors, phasors, complex number and circuit response characteristics.

ELC 228 PLC Applications 2 6 4
Prerequisites: ELC 128
Corequisites: None

This course continues the study of the programming and applications of programmable logic controllers. Emphasis is placed on advanced programming, networking, advanced I/O modules, reading and interpreting error codes, and troubleshooting. Upon completion, students should be able to program and troubleshoot programmable logic controllers.

ELC 229 Applications Project 1 3 2
Prerequisites: ELC 112, ELC 113, or ELC 140
Corequisites: None

This course provides an individual and/or integrated team approach to a practical project as approved by the instructor. Topics include project selection and planning, implementation and testing, and a final presentation. Upon completion, students should be able to plan and implement an applications-oriented project.

ELN 114 Marine Electronics 1 2 2
Prerequisites:
Corequisites: None

This course introduces a wide variety of marine electronics that are used in the marine research industry. Topics include basic theory, components, circuits, testing, troubleshooting, and installation of AC and DC marine electronics. Upon completion, students should be able to install, troubleshoot, and operate basic marine electronics used in the marine research industry.

ELN 131 Electronic Devices 3 3 4
Prerequisites: ELC 131
Corequisites: None

This course includes semiconductor-based devices such as diodes, bipolar transistors, FETs, thyristors, and related components . Emphasis is placed on analysis, selection, biasing, and applications in power supplies, small signal amplifiers, and switching and control circuits. Upon completion, students should be able to construct, analyze, verify, and troubleshoot discrete component circuits using appropriate techniques and test equipment.

ELN 132 Linear IC Applications 3 3 4
Prerequisites: ELN 131
Corequisites: None

This course introduces the characteristics and applications of linear integrated circuits. Topics include op-amp circuits, differential amplifiers, instrumentation amplifiers, waveform generators, active filters, PLLs, and IC voltage regulators. Upon completion, students should be able to construct, analyze, verify, and troubleshoot linear integrated circuits using appropriate techniques and test equipment.

ELN 133 Digital Electronics 3 3 4
Prerequisites: ELC 131 or ELC 140, "ELC 112, ELN 111"
Corequisites: None

This course covers combinational and sequential logic circuits. Topics include number systems, Boolean algebra, logic families, MSI and LSI circuits, AC/DC converters, and other related topics. Upon completion, students should be able to construct, analyze, verify, and troubleshoot digital circuits using appropriate techniques and test equipment.

ELN 229 Industrial Electronics 2 4 4
Prerequisites: ELC 112, ELC 131, or ELC 140
Corequisites: None

This course covers semiconductor devices used in industrial applications. Topics include the basic theory, application, and operating characteristics of semiconductor devices (filters, rectifiers, FET, SCR, Diac, Triac, Op-amps, etc). Upon completion, students should be able to install and/or troubleshoot these devices for proper operation in an industrial electronic circuit.

ELN 231 Industrial Controls 2 3 3
Prerequisites: ELC 112, or ELC 131, or ELC 140
Corequisites: None

This course introduces the fundamental concepts of solid-state control of rotating machinery and associated peripheral devices. Topics include rotating machine theory, ladder logic, electromechanical and solid state relays, motor controls, pilot devices, three-phase power systems, and other related topics. Upon completion, students should be able to interpret ladder diagrams and demonstrate an understanding of electromechanical and electronic control of rotating machinery.

ELN 232 Intro to Microprocessors Class 3 Lab 3 Credit 4 Clinical
Prerequisites: ELN 133
Corequisites: None

This course introduces microprocessor architecture and microcomputer systems including memory and input/output interfacing. Topics include assembly language programming, bus architecture, bus cycle types, I/O systems, memory systems, interrupts, and other related topics. Upon completion, students should be able to interpret, analyze, verify, and troubleshoot fundamental microprocessor circuits and programs using appropriate techniques and test equipment. In addition, microprocessor interfacing techniques using C and assembly language programming will be examined.

ELN 234 Communication Systems 3 3 4
Prerequisites: ELN 132 or ELN 140
Corequisites: None
This course introduces the fundamentals of electronic communication systems. Topics include the frequency spectrum, electrical noise, modulation techniques, characteristics of transmitters and receivers, and digital communications. Upon completion, students should be able to interpret analog and digital communication circuit diagrams, analyze transmitter and receiver circuits, and use appropriate communication test equipment.

ELN 236 Fiber Optics and Lasers 3 2 4
Prerequisites: ELN 234
Corequisites: None

This course introduces the fundamentals of fiber optics and lasers. Topics include the transmission of light; characteristics of fiber optic and lasers and their systems; fiber optic production; types of lasers; and laser safety. Upon completion, students should be able to understand fiber optic communications and basic laser fundamentals. In addition, opto-electronic devices and optical transmitters and receivers will be investigated and analyzed.

ELN 237 Local Area Networks 2 3 3
Prerequisites: CIS 111
Corequisites: None

This course introduces the fundamentals of local area networks and their operation in business and computer environments. Topics include the characteristics of network topologies, system hardware (repeaters, bridges, routers, gateways), system configuration, and installation and administration of the LAN. Upon completion, students should be able to install, maintain, and manage a local area network.

ELN 238 Advanced LANs 2 3 3
Prerequisites: ELN 237
Corequisites: None

This course covers advanced concepts, tools, and techniques associated with servers, workstations, and overall local area network performance. Topics include network security and configuration, system performance and optimization, communication protocols and packet formats, troubleshooting techniques, multi-platform integration, and other related topics. Upon completion, students should be able to use advanced techniques to install, manage, and troubleshoot networks and optimize server and workstation performance.

ELN 260 Prog Logic Controllers 3 3 4
Prerequisites: None
Corerequisites: None

This course provides a detailed study of PLC applications, with a focus on design of industrial control circuits using the PLC. Topics include PLC components, memory organization, math instructions, programming documentation, input/output devices, and applying PLCs in the design of industrial control systems. Upon completion, students should be able to design and program a PLC system to perform a wide variety of industrial control functions.

ELN 275 Troubleshooting 1 2 2
Prerequisites:
Corequisites: ELN 133 or ELN 141

This course covers techniques of analyzing and repairing failures in electronic equipment. Topics include safety, signal tracing, use of service manuals, and specific troubleshooting methods for analog, digital, and other electronics-based circuits and systems. Upon completion, students should be able to logically diagnose and isolate faults and perform necessary repairs to meet manufacturers' specifications.

ENG 075 Reading/Lang. Essentials 5 0 5
Prerequisite: English or Reading Placement Score 23-34.

This course uses whole language to develop proficiency in basic reading and writing. Emphasis is placed on increasing vocabulary, developing comprehension skills, and improving grammar. Upon completion, students should be able to understand and create grammatically and syntactically correct sentences.

ENG 085 Read & Writing Foundat 5 0 5
Prerequisite: ENG 075 or English or Reading Placement Score 35-38.

This course uses whole language to develop proficiency in reading and writing for college. Emphasis is placed on applying analytical and critical reading skills to a variety of texts and on introducing the writing process. Upon completion, students should be able to recognize and use various patterns of text organization and compose effective paragraphs.

Class Lab Credit Clinical

ENG 095 Reading/Comp Strategies 5 0 5
Prerequisite: ENG 085 or English or Reading Placement Score 39-41.

This course uses whole language to strengthen proficiency in reading and writing for college. Emphasis is placed on applying critical reading skills to narrative and expository texts and on using the writing process. Upon completion, students should be able to comprehend, analyze, and evaluate college texts and to compose essays in preparation for college writing.

ENG 101 Applied Communications 3 0 3
Prerequisite: None.

This course is designed to enhance reading and writing skills for the workplace. Emphasis is placed on technical reading, job-related vocabulary, sentence writing, punctuation, and spelling. Upon completion, students should be able to identify main ideas with supporting details and produce mechanically correct short writings appropriate to the workplace. This course meets requirements for diploma programs.

ENG 102 Applied Communicat II 3 0 3
Prerequisite: None.

This course is designed to enhance writing and speaking skills for the workplace. Emphasis is placed on generating short writings such as job application documents, memoranda, and reports and developing interpersonal communication skills with employees and the public. Upon completion, students should be able to prepare effective, short, and job-related written and oral communications. This course meets requirements for diploma programs.

ENG 111 Expository Writing 3 0 3
Prerequisite: ENG 095 or English and Reading Placement score 42 or higher

This course is the required first course in a series of two designed to develop the ability to produce clear expository prose. Emphasis is placed on the writing process including audience analysis, topic selection, thesis support and development, editing, and revision. Upon completion, students should be able to produce unified, coherent, well-developed essays using standard written English. This course may be taught in a computer lab.

ENG 112 Argument-Based Research 3 0 3
Prerequisite: ENG 111.

This course, the second in a series of two, introduces research techniques, documentation styles, and argumentative strategies. Emphasis is placed on analyzing data and incorporating research findings into documented argumentative essays and research projects. Upon completion, students should be able to summarize, paraphrase, interpret, and synthesize information from primary and secondary sources using standard research format and style.

Class Lab Credit Clinical

ENG 114 Profess Research/Report 3 0 3
Prerequisite: ENG 111.

This course, the second in a series of two, is designed to teach professional communication skills. Emphasis is placed on research, listening, critical reading and thinking, analysis, interpretation, and design used in oral and written presentations. Upon completion, students should be able to work individually and collaboratively to produce well-designed business and professional written and oral presentations.

ENG 115 Oral Communication 3 0 3
Prerequisite: None.

This course introduces the basic principles of oral communication in both small group and public settings. Emphasis is placed on the components of the communication process, group decision-making, and public address. Upon completion, students should be able to demonstrate the principles of effective oral communication in small group and public settings.

ENG 125 Creative Writing I 3 0 3
Prerequisites: ENG 111.
Co-Requisites: ENG 112, or ENG 114.

This course is designed to provide students with the opportunity to practice the art of creative writing. Emphasis is placed on writing, fiction, poetry, and sketches. Upon completion, students should be able to craft and critique their own writing and critique the writing of others.

ENG 126 Creative Writing II 3 0 3
Prerequisites: ENG 125.

This course is designed as a workshop approach for advancing imaginative and literary skills. Emphasis is placed on the discussion of style, techniques, and challenges for first publications. Upon completion, students should be able to submit a piece of their writing for publication.

ENG 131 Intro to Literature 3 0 3
Prerequisites: ENG 111.
Co-Requisites: ENG 112, or ENG 114.

This course introduces the principal genres of literature. Emphasis is placed on literary terminology, devices, structure, and interpretation. Upon completion, students should be able to analyze and respond to literature.

ENG 231 American Literature I 3 0 3
Prerequisites: ENG 112, or ENG 114.

This course provides a survey of selected works in early American literature from the beginnings to 1865. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical, and cultural contexts.

Class Lab Credit Clinical

ENG 232 American Literature II 3 0 3
Prerequisites: ENG 112, or ENG 114.

This course provides a survey of selected works in early American literature from 1865 to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts.

ENG 241 British Literature I 3 0 3
Prerequisites: ENG 112, or ENG 114.

This course provides a survey of selected works in British literature from the beginnings to the Romantic Period. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts.

ENG 242 British Literature II 3 0 3
Prerequisites: ENG 112, or ENG 114.

This course provides a survey of selected works in British literature from the Romantic Period to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts.

ENG 251 West World Literature I 3 0 3
Prerequisites: ENG 112, or ENG 114.

This course provides a survey of selected European works from the Classical period through the Renaissance. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to selected works.

ENG 252 West World Literature II 3 0 3
Prerequisites: ENG 112, or ENG 114.

This course provides a survey of selected European works from the Neoclassical period to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to selected works.

ENG 261 World Literature I 3 0 3
Prerequisites: ENG 112, or ENG 114.

This course introduces selected works from the Pacific, Asia, Africa, Europe, and the Americas from their literary beginnings through the seventeenth century. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to selected works.

ENG 262 World Literature II 3 0 3
Prerequisites: ENG 112, or ENG 114.

This course introduces selected works from the Pacific, Asia, Africa, Europe, and the Americas from the eighteenth century to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to selected works.

ENV 110 Environmental Science 3 0 3
Prerequisites: None
Corequisites: None

This course covers the environmental problems facing society today. Topics include population, natural resources, air and water pollution, and waste disposal problems. Upon completion, students should be able to demonstrate insight into the role the individual plays in shaping the environment. Environmental issues unique to the Coastal Plain province will also be addressed, including shoreline development, beach erosion, and wetlands destruction.

ENV 120 Earth Science 3 2 4
Prerequisites: ENV 110 or BIO 140 and 140A
Corequisites: None

This course covers the fundamental principles of earth science that provide a foundation for continued study in environmental science. Emphasis is placed on the basic principles of geology, oceanography, meteorology, astronomy, and the development of inquiry about the natural world through observation. Upon completion, students should be able to demonstrate an understanding of the component areas of earth science. An introduction to coastal geology, basic site mapping techniques, and global positioning systems (GPS) will also be covered.

ENV 210 Management of Waste 3 2 4
Prerequisites:
Corequisites: CHM 132

This course examines contemporary environmental issues concerning the disposal of wastes. Topics include problems associated with the disposal of municipal solid waste, low-level radioactive waste, high-level radioactive waste, and hazardous and toxic waste. Upon completion, students should be able to demonstrate an understanding of the methodologies and technologies involved in the proper handling and disposal of wastes. Laboratory exercises will include consideration of the engineering, scientific, regulatory, and social issues associated with the siting and operation of waste disposal facilities.

ENV 212 Instrumentation — Class 3, Lab 3, Credit 4, Clinical
Prerequisites:
Corequisites: CHM 132

This course introduces analytical techniques used in quantitative analysis of chemical samples. Emphasis is placed on both classical wet techniques of chemical analysis and modern instrumental techniques. Upon completion, students should be able to use the methodologies and technologies involved in chemical analysis. Techniques for collecting and field testing soil, air, groundwater, and surface water samples will also be covered.

ENV 214 Water Quality — Class 3, Lab 2, Credit 4
Prerequisites: ENV 110 or BIO 140 and 140A
Corequisites: CHM 132

This course examines the constituents of natural waters from a biological and geochemical perspective. Topics include common components of water, water sources, water law, health consequences, water treatment procedures, and the design of water treatment plants. Upon completion, students should be able to demonstrate an understanding of the biological, chemical, and geological factors affecting water quality. Laboratory exercises will include basic water quality sampling procedures, interpretation of groundwater monitoring data, watershed management planning, and delineation of wellhead protection areas.

ENV 218 Environmental Health — Class 3, Lab 0, Credit 3
Prerequisites: BIO 111
Corequisites: None

This course covers the influence of environmental conditions on human health. Emphasis is placed on environmental contaminants and the major exposure routes of the human body. Upon completion, students should be able to examine segments of the environment, including air, water, and food, and determine how the conditions of these influence human health. The basic principles of toxicology and environmental risk assessment will also be covered.

ENV 222 Air Quality — Class 3, Lab 2, Credit 4
Prerequisites: ENV 110 or BIO 140 and 140A
Corequisites: CHM 132

This course introduces the study of air quality and air pollution. Emphasis is placed on air pollution basics, current atmospheric conditions, effects of air pollution, air quality analysis and measurement, and regulatory control of air pollution. Upon completion, students should be able to demonstrate an understanding of the environmental hazards associated with air pollution from a human health and welfare perspective. The course will also consider air pollution meteorology, climate change, indoor air pollutants, toxic gases, and instrumentation used in meteorology and air quality monitoring.

ENV 226 Environmental Law — Class 3, Lab 0, Credit 3
Prerequisites: ENV 110 or BIO 140 and 140A, ENV 218

This course covers federal laws and acts concerning environmental quality standards and the use of resources, legal procedures for enforcing laws, and problems concerning enforcement. Emphasis is placed on environmental law basics, water quality laws, air quality laws, waste disposal laws, and biological resource protection laws. Upon completion, students should be able to demonstrate an understanding of federal/state environmental laws and their importance to the protection of environmental quality. The North Carolina regulatory framework addressing well construction, groundwater quality, underground storage tanks, surface water standards, animal waste, and coastal zone development will also be explored.

FBG 100 Fiberglass Mold Making — Class 3, Lab 4, Credit 5
Prerequisites: BTB 102
Corequisites: None

This course introduces the construction of male and female molds for fiberglass boat production. Emphasis is placed on perfecting the plug chopper gun operation, materials and methods for mold construction, and current trends in the boat building industry. Upon completion, students should be able to finish a plug to the standards required by the industry and build a fiberglass mold suitable for production.

FRE 111 Elementary French I — Class 3, Lab 0, Credit 3
Prerequisite: None.

This course introduces the fundamental elements of the French language within a cultural context. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written French and demonstrate cultural awareness.

FRE 112 Elementary French II — Class 3, Lab 0, Credit 3
Prerequisite: FRE 111.

This course is a continuation of FRE 111 focusing on the fundamental elements of the French language within a cultural context. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written French and to demonstrate further cultural awareness.

FRE 211 Intermediate French I — Class 3, Lab 0, Credit 3
Prerequisite: FRE 112.

This course provides a review and expansion of the essential skills of the French language. Emphasis is placed on the study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future.

FRE 212 Intermediate French II Class 3 Lab 0 Credit 3 Clinical
Prerequisite: FRE 211.

This course is a continuation of FRE 211. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication.

GEL 111 Introductory Geology 3 2 4
Prerequisites
Corequisites: None

This course introduces basic landforms and geological processes. Topics include rocks, minerals, volcanoes, fluvial processes, geological history, plate tectonics, glaciers, and coastal dynamics. Upon completion, students should be able to describe basic geological processes that shape the earth.

GEL 113 Historical Geology 3 2 4
Prerequisites: GEL 111
Corequisites: None

This course covers the geological history of the earth and its life forms. Emphasis is placed on the study of rock strata, fossil groups, and geological time. Upon completion, students should be able to identify major fossil groups and associated rock strata and approximate ages of geological formations.

GEL 120 Physical Geology 3 2 4
Prerequisites
Corequisites: None

This course provides a study of the structure and composition of the earth's crust. Emphasis is placed on weathering, erosional and depositional processes, mountain building forces, rocks and minerals, and structural changes. Upon completion, students should be able to explain the structure, composition, and formation of the earth's crust.

HEA 111 First Aid & Safety 1 2 2
Prerequisites:
Corequisites: None

This course provides first aid and safety education. Emphasis is placed on safe attitudes, accident prevention, and response to accidents and injuries. Upon completion, students should be able to demonstrate proper first aid and safety skills.

HEA 112 First Aid & CPR 1 2 2
Prerequisites:
Corequisites: None

This course introduces the basics of emergency first aid treatment. Topics include rescue breathing, CPR, first aid for choking and bleeding, and other first aid procedures. Upon completion, students should be able to demonstrate skills in providing emergency care for the sick and injured until medical help can be obtained.

HIS 115 Intro to Global History 3 0 3
Prerequisite: Proficiency in reading or a grade of "C" or better in ENG 095.

This course introduces the study of global history. Emphasis is placed on topics such as colonialism, industrialism, and nationalism. Upon completion, students should be able to analyze significant global historical issues. This course will focus primarily on Asia, Africa, Latin America, and the Middle East since 1500.

HIS 121 Western Civilization I 3 0 3
Prerequisite: Proficiency in reading or a grade of "C" or better in ENG 095.

This course introduces western civilization from pre-history to the early modern era. Topics include ancient Greece, Rome, and Christian institutions of the Middle Ages and the emergence of national monarchies in western Europe. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in early western civilization.

HIS 122 Western Civilization II 3 0 3
Prerequisite: Proficiency in reading or a grade of "C" or better in ENG 095.

This course introduces western civilization from the early modern era to the present. Topics include the religious wars, the Industrial Revolution, World Wars I and II, and the Cold War. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in modern western civilization.

HIS 131 American History I 3 0 3
Prerequisite: Proficiency in reading or a grade of "C" or better in ENG 095.

This course is a survey of American history from pre-history through the Civil War era. Topics include the migrations to the Americas, the colonial and revolutionary periods, the development of the Republic, and the Civil War. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in early American history.

HIS 132 American History II 3 0 3
Prerequisite: Proficiency in reading or a grade of "C" or better in ENG 095.

This course is a survey of American history from the Civil War era to the present. Topics include industrialization, immigration, the Great Depression, the major American wars, the Cold War, and social conflict. Upon completion, students should be

able to analyze significant political, socioeconomic, and cultural developments in American history since the Civil War.

	Class	Lab	Credit	Clinical
HRM 110 Intro to Hospitality	2	0	2	

Prerequisites:
Corequisites: None

This course covers the growth and progress of the hospitality industry. Topics include financing, hotels, restaurants, and clubs. Upon completion, students should be able to demonstrate an understanding of the background, context, and career opportunities that exist in the hospitality industry.

	Class	Lab	Credit	Clinical
HRM 115 Housekeeping	3	0	3	

Prerequisites:
Corequisites: None

This course covers the scope, responsibilities, communications, terminology, materials, and concerns specific to hotel housekeeping. Topics include management and supervision of housekeeping staff in the proper cleaning and sanitation of rooms and public areas, budgeting, purchasing, security, and inventory control. Upon completion, students should be able to understand and apply the principles of organization and management of a housekeeping department

	Class	Lab	Credit	Clinical
HRM 115A Housekeeping Lab	0	2	1	

Prerequisites:
Corequisites: HRM 115

This course is a laboratory to accompany HRM 115. Emphasis is placed on the development of skills for the performance of housekeeping tasks. Upon completion, students should be able to demonstrate mastery of housekeeping skills.

	Class	Lab	Credit	Clinical
HRM 120 Front Office Procedures	3	0	3	

Prerequisites:
Corequisites: None

This course provides a systematic approach to hotel front office procedures. Topics include reservations, registration, guest satisfaction, occupancy and rate management, security, interdepartmental communications, and related guest services. Upon completion, students should be able to demonstrate a basic understanding of current front office operating systems, including efficient and courteous guest services.

	Class	Lab	Credit	Clinical
HRM 120A Front Office Pro. Lab	0	2	1	

Prerequisites:
Corequisites: HRM 120

This course is laboratory to accompany HRM 120. Emphasis is placed on practical computer applications of theory covered in HRM 120. Upon completion, students should be able to demonstrate a basic proficiency in computer-based, front office applications.

	Class	Lab	Credit	Clinical
HRM 125 Hospitality Etiquette	1	0	1	

Prerequisites:
Corequisites: None

This course covers social skills needed to effectively interact within organizational and customer situations. Topics include general social manners, personal appearance, table manners, restaurant and meeting etiquette, and business interaction. Upon completion, students should be able to function with confidence in various social, cultural, and professional situations.

	Class	Lab	Credit	Clinical
HRM 135 Facilities Management	2	0	2	

Prerequisites:
Corequisites: None

This course introduces the basic elements of planning and designing hospitality facilities, including their maintenance and upkeep. Topics include equipment and plant preventive maintenance, engineering, interior design, space utilization, remodeling and expansion, and traffic and work flow patterns. Upon completion, students should be able to demonstrate an understanding of the planning, design, and maintenance of hospitality physical plants and equipment.

	Class	Lab	Credit	Clinical
HRM 140 Hospitality Tourism Law	3	0	3	

Prerequisites:
Corequisites: None

This course covers the rights and responsibilities that the law grants to or imposes upon the hospitality industry. Topics include federal and state regulations, historical and current practices, safety and security, risk management, loss prevention, torts, and contracts. Upon completion, students should be able to demonstrate an understanding of the legal system to prevent or minimize organizational liability.

	Class	Lab	Credit	Clinical
HRM 145 Hospitality Supervision	3	0	3	

Prerequisites:
Corequisites: None

This course covers principles of supervision as they apply to the hospitality industry. Topics include recruitment, selection, orientation, training, evaluation, and leadership skills. Upon completion, students should be able to understand and apply basic supervisory skills unique to the hospitality and service industry.

	Class	Lab	Credit	Clinical
HRM 150 Hospitality Training	3	0	3	

Prerequisites:
Corequisites: None

This course introduces techniques and methodology involved in developing training programs. Topics include job specification, description and breakdown, training methods, coaching, evaluation, and management development. Upon completion, students should be able to produce job specifications, descriptions, and breakdowns and conduct technical training.

	Class	Lab	Credit	Clinical
HRM 210 Meetings & Conventions	3	0	3	

Prerequisites:
Corequisites: None

This course introduces organization, arrangement, and operation of conventions, trade shows, professional meetings, and food functions. Emphasis is placed on the methods of marketing, selling, and servicing conventions and trade shows and the division of administrative responsibilities in their operation. Upon completion, students should be able to describe and apply the principles of management to multi-function, multi-day conferences and events.

HRM 215 Restaurant Management	3	0	3	

Prerequisites: CUL 135
Corequisites: None

This course provides an overview of the various challenges and responsibilities encountered in managing a food and beverage operation. Topics include planning, administration, organization, accounting, marketing, and human resources from an integrated managerial viewpoint. Upon completion, students should be able to demonstrate an understanding of the operation of a restaurant.

HRM 215 A Restaurant Mgt Lab	0	2	1	

Prerequisites:
Corequisites: HRM 215

This course is a laboratory to accompany HRM 215. Emphasis is placed on practical applications of restaurant management principles. Upon completion, students should be able to demonstrate a basic proficiency in restaurant management applications.

HRM 220 Food & Bev Control	3	0	3	

Prerequisites: MAT 110
Corequisites: None

This course introduces controls and accounting procedures used in the hospitality industry. Topics include analysis of financial statements, reports, and costs. Upon completion, students should be able to understand and apply food, beverage, and labor cost control systems.

HRM 220A Food & Bev Lab	0	2	1	

Prerequisites:
Corequisites: HRM 220

This course is a laboratory to accompany HRM 220. Emphasis is placed on practical computer applications of food and beverage control procedures. Upon completion, students should be able to demonstrate proficiency in computer-based control applications.

	Class	Lab	Credit	Clinical
HRM 225 Beverage Management	2	0	2	

Prerequisites: None
Corequisites: None

This course introduces the management of beverage operations in a hospitality operation. Topics include history, service, procurement, storage, and control of wines, fermented and distilled beverages, sparkling waters, coffees, and teas. Upon completion, students should be able to demonstrate knowledge of the beverages consumed in a hospitality operation.

HRM 230 Club & Resort Management	2	0	2	

Prerequisites:
Corequisites: None

This courses introduces specific principles of managing a hospitality operation in a resort or club setting. Topics include resort and club marketing, recreational and sport activity management, and retail management. Upon completion, students should be able to demonstrate an understanding of the specialized skills involved in resort and club management.

HRM 240 Hospitality Marketing	3	0	3	

Prerequisites:
Corequisites: None

This course covers planning, organizing, directing, and analyzing the results of marketing programs in the hospitality industry. Emphasis is placed on market segmentation and analysis, product and image development, sales planning, advertising, public relations, and collateral materials. Upon completion, students should be able to prepare a marketing plan applicable to the hospitality industry.

HRM 245 Hosp Human Resour Mgt	3	0	3	

Prerequisites:
Corequisites: None

This course presents a systematic approach to human resource management in the hospitality industry. Topics include labor regulations and laws, hiring, development, discipline, motivation, separation, productivity, and organizational culture. Upon completion, students should be able to apply sound human resource management skills to the hospitality industry.

HRM 280 Hosp. Mgt Problems	3	0	3	

Prerequisites: HRM 220
Corequisites: None

This course addresses current global, national, and local concerns and issues in the hospitality industry. Emphasis is placed on problem-solving skills using currently available resources. Upon completion, students should be able to apply hospitality management principles to real challenges facing industry managers.

HUM 110 Technology and Society 3 0 3
Prerequisite: None.

This course considers technological change from historical, artistic, and philosophical perspectives and its effect on human needs and concerns. Emphasis is placed on the causes and consequences of technological change. Upon completion, students should be able to critically evaluate the implications of technology. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

HUM 160 Introduction to Film 3 0 3
Prerequisite: None.

This course introduces the fundamental elements of film artistry and production. Topics include film styles, history, and production techniques, as well as the social values reflected in film art. Upon completion, students should be able to critically analyze the elements covered in relation to selected films.

HYD 110 Hydraulics/Pneumatics I 2 3 3
Prerequisites:
Corequisites: None

This course introduces the basic components and functions of hydraulic and pneumatic systems. Topics include standard symbols, pumps, control valves, control assemblies, actuators, FRL, maintenance procedures, and switching and control devices. Upon completion, students should be able to understand the operation of a fluid power system, including design, application, and troubleshooting.

HYD 112 Hydraulics/Med/Heavy Duty 1 2 2
Prerequisites:
Corequisites: None

This course introduces hydraulic theory and applications as applied to mobile equipment. Topics include component studies such as pumps, motors, valves, cylinders, filters, reservoirs, lines, and fittings. Upon completion, students should be able to identify, diagnose, test, and repair hydraulic systems using schematics and technical manuals.

ISC 112 Industrial Safety 2 0 2
Prerequisites:
Corequisites: None

This course introduces the principles of industrial safety. Emphasis is placed on industrial safety and OSHA and environmental regulations. Upon completion, students should be able to demonstrate knowledge of a safe working environment.

ISC 132 Mfg Quality Control 2 3 3
Prerequisites:
Corequisites: None

This course introduces quality concepts and techniques used in industry. Topics include elementary statistics and probability, process control, process capability, and quality improvement tools. Upon completion, students should be able to demonstrate an understanding of the concepts and principles of quality and apply them to the work environment.

ISC 135 Principles Industrial Mgt 3 0 3
Prerequisites:
Corequisites: None

This course covers the managerial principles and practices required for organizations to succeed in modern industry. Topics include the functions and roles of all levels of management, organization design, and planning and control of manufacturing operations. Upon completion, students should be able to demonstrate an understanding of management principles and integrate these principles into job situations.

ISC 151 Plant Layout 2 2 3
Prerequisites:
Corequisites: None

This course provides a practical study of factory planning. Emphasis is placed on site selection and efficient arrangement of work areas to achieve lower manufacturing costs. Upon completion, students should be able to produce sample layouts of manufacturing operations.

ISC 226 Facilities Design 3 2 4
Prerequisites:
Corequisites: None

This course introduces the methods and principles used to obtain data and design an efficient manufacturing facility. Emphasis is placed on the design of an efficient material handling system to optimize departmental and work station design. Upon completion, students should be able to obtain the necessary data and use that data to design an efficient manufacturing facility.

LEX 110 Intro to Paralegal Study 2 0 2
Prerequisites:
Corequisites: None
This course introduces the paralegal profession and the legal system. Topics include regulations and concepts, ethics, case analysis, legal reasoning, career opportunities, certification, professional organizations, and other related topics. Upon completion, students should be able to explain the role of the paralegal and identify the skills, knowledge, and ethics required of legal assistants.

	Class	Lab	Credit	Clinical
LEX 120 Legal Research/Writing I	2	2	3	

Prerequisites:
Corequisites: None

This course introduces the techniques of legal research and writing. Emphasis is placed on locating, analyzing, applying, and updating sources of law; effective legal writing, including proper citation; and the use of electronic research methods. Upon completion, students should be able to perform legal research and writing assignments using techniques covered in the course.

LEX 121 Legal Research/Writing II	2	2	3	

Prerequisites: LEX 120
Corequisites: None

This course covers advanced topics in legal research and writing. Topics include more complex legal issues and assignments involving preparation of legal memos, briefs, and other documents and the advanced use of electronic research methods. Upon completion, students should be able to perform legal research and writing assignments using techniques covered in the course.

LEX 130 Civil Injuries	2	0	2	

Prerequisites:
Corequisites: None

This course covers traditional tort concepts and the evolving body of individual rights created by statute. Topics include intentional and non-intentional torts with emphasis on negligence, strict liability, civil rights, workplace and environmental liability, remedies, and damages. Upon completion, students should be able to recognize, explain, and evaluate elements of civil injuries and related defenses.

LEX 140 Civil Litigation I	3	0	3	

Prerequisites:
Corequisites: None

This course introduces the structure of the legal system and the rules governing civil litigation. Emphasis is placed on jurisdiction and the state and federal rules of civil procedure and rules of evidence. Upon completion, students should be able to assist an attorney in the preparation of a civil case.

LEX 150 Commercial Law	2	2	3	

Prerequisites:
Corequisites: None

This course covers legally enforceable agreements, forms of organization, and selected portions of the Uniform Commercial Code. Topics include drafting and enforcement of contracts, leases, and related documents and selection and implementation of business organization forms, sales, and commercial papers. Upon completion, students should be able to apply the elements of a contract, prepare various business documents, and understand the role of commercial paper.

	Class	Lab	Credit	Clinical
LEX 160 Criminal Law & Proced	2	2	3	

Prerequisites:
Corequisites: None

This course introduces substantive criminal law and procedural rights of the accused. Topics include elements of state/federal crimes, defenses, constitutional issues, pre-trial and trial process, and other related topics. Upon completion, students should be able to explain elements of specific crimes and assist an attorney in preparing a criminal case.

LEX 170 Administrative Law	2	0	2	

Prerequisites:
Corequisites: None

This course covers the scope, authority, and regulatory operations of various federal, state, and local administrative agencies. Topics include social security, worker's compensation, unemployment, zoning, and other related topics. Upon completion, students should be able to research sources of administrative law, investigate, and assist in representation of clients before administrative agencies.

LEX 210 Real Property I	2	0	2	

Prerequisites:
Corequisites: None

This course introduces the study of real property law. Topics include the distinction between real and personal property, various estates, mechanics of conveyance and encumbrance, recordation, special proceedings, and other related topics. Upon completion, students should be able to identify estates, forms of deeds, requirements for recording, and procedures to enforce rights to real property.

LEX 211 Real Property II	1	4	3	

Prerequisites: LEX 210
Corequisites: None

This course continues the study of real property law relating to title examination and preparation of closing documents. Topics include use of courthouse and other public records in title examination and preparation of documents required in real estate transactions and closings. Upon completion, students should be able to plot/draft a description, perform complete title examination, draft closing documents including title insurance forms, and prepare disbursement reconciliation.

LEX 214 Investigat & Trial Prep	1	4	3	

Prerequisite: LEX 210
Corequisite: None

This course introduces the fundamentals of investigation. Topics include compiling/assembling data for cases; investigative planning/information gathering techniques; locating/interviewing witnesses; collection/preserving/evaluating sufficiency/admissibility of evidence; preparation of reports; and evidence presentation at depositions/court proceeding. Upon

completion, students should be able to plan/use investigative checklists, understand/demonstrate investigative techniques, prepare reports, and enhance verbal and interpersonal communications skills and interviewing techniques.

LEX 220 Corporate Law 2 0 2
Prerequisites:
Corequisites: None

This course covers the legal aspects of forming, operating, and maintaining a business. Emphasis is placed on the business corporation with additional coverage of sole proprietorships and partnerships. Upon completion, students should be able to draft basic partnership and corporate documents and file these documents as required.

LEX 240 Family Law 2 0 2
Prerequisites:
Corequisites: None

This course covers laws governing domestic relations. Topics include marriage, separation, divorce, child custody, support, property division, adoption, domestic violence, and other related topics. Upon completion, students should be able to interview clients, gather information, and draft documents related to family law.

LEX 250 Wills, Estates, & Trusts 2 2 3
Prerequisites:
Corequisites: None

This course covers various types of wills, trusts, probate, estate administration, and intestacy. Topics include types of wills and execution requirements, caveats and dissents, intestate succession, inventories and accountings, distribution and settlement, and other related topics. Upon completion, students should be able to draft simple wills, prepare estate forms, understand administration of estates including taxation, and explain terms regarding trusts.

LEX 260 Bankruptcy & Collection 2 0 2
Prerequisites:
Corequisites: None

This course provides an overview of the laws of bankruptcy and the rights of creditors and debtors. Topics include bankruptcy procedures and estate management, attachment, claim and delivery, repossession, foreclosure, collection, garnishment, and post-judgment collection procedure. Upon completion, students should be able to prepare and file bankruptcy forms, collection letters, statutory liens, and collection of judgments.

LEX 270 Law Office Mgt/Tech 1 2 2
Prerequisites:
Corequisites: None

This course provides an overview of law office management and organization. Topics include office forms, filing systems, billing/time keeping, computer systems, calendar systems, library administration, case management, office/personnel procedures, ethics, and technology. Upon completion, students should be able to set up and maintain various law office systems, monitor case progress, and supervise non-lawyer personnel.

LEX 280 Ethics & Professionalism 2 0 2
Prerequisites:
Corequisites: None

This course reinforces legal ethics and the role of the paralegal in a professional work environment. Topics include a review of ethics, employment opportunities, and search techniques; paralegal certification; and other related topics. Upon completion, students should be able to understand the role of a professional paralegal and identify authority that can properly be delegated by an attorney.

MAC 111 Machining Technology I 2 12 6
Prerequisites:
Corequisites: None

This course introduces machining operations as they relate to the metalworking industry. Topics include machine shop safety, measuring tools, lathes, drilling machines, saws, milling machines, bench grinders, and layout instruments. Upon completion, students should be able to safely perform the basic operations of measuring, layout, drilling, sawing, turning, and milling.

MAC 112 Machining Tech II 2 12 6
Prerequisites: MAC 111
Corequisites: None

This course provides additional instruction and practice in the use of precision measuring tools, lathes, milling machines, and grinders. Emphasis is placed on setup and operation of machine tools including the selection and use of work holding devices, speeds, feeds, cutting tools, and coolants. Upon completion, students should be able to perform basic procedures on precision grinders and advanced operations of measuring, layout, drilling, sawing, turning, and milling.

MAC 113 Machining Tech III 2 12 6
Prerequisites: MAC 112
Corequisites: None

This course provides an introduction to advanced and special machining operations. Emphasis is placed on working to specified tolerances with special and advanced setups. Upon

completion, students should be able to produce a part to specifications.

MAC 122 CNC Turning 1 3 2
Prerequisites:
Corequisites: None

This course introduces the programming, setup, and operation of CNC turning centers. Topics include programming formats, control functions, program editing, part production, and inspection. Upon completion, students should be able to manufacture simple parts using CNC turning centers.

MAC 124 CNC Milling 1 3 2
Prerequisites:
Corequisites: None

This course introduces the manual programming, setup, and operation of CNC machining centers. Topics include programming formats, control functions, program editing, part production, and inspection. Upon completion, students should be able to manufacture simple parts using CNC machining centers.

MAC 131 Blueprint Read/Mach I 1 2 2
Prerequisites:
Corequisites: None

This course covers the basic principles of blueprint reading and sketching. Topics include multi-view drawings; interpretation of conventional lines; and dimensions, notes, and thread notations. Upon completion, students should be able to interpret basic drawings, visualize parts, and make pictorial sketches.

MAC 132 Blueprint Read/Mach II 1 2 2
Prerequisites: MAC 131
Corequisites: None

This course introduces more complex industrial blueprints. Emphasis is placed on auxiliary views, section views, violations of true project, special views, applications of GD & T, and interpretation of complex parts. Upon completion, students should be able to read and interpret complex industrial blueprints.

MAC 152 Adv Machining Calc 1 2 2
Prerequisites:
Corequisites: None

This course combines mathematical functions with practical machine shop applications and problems. Emphasis is placed on gear ratios, lead screws, indexing problems, and their applications in the machine shop. Upon completion, students should be able to calculate solutions to machining problems.

MAC 153 Compound Angles 1 2 2
Prerequisites:
Corequisites: None

This course introduces the application of basic types and uses of compound angles. Emphasis is placed on problem solving by tilting and rotating adjacent angles to resolve an unknown compound angle. Upon completion, students should be able to set up and develop compound angles on parts using problem-solving techniques. *This course is a unique concentration requirement of the Tool, Die, and Mold Making concentration in the Machining Technology program.*

MAC 214 Machining Tech IV 2 12 6
Prerequisites: MAC 112
Corequisites: None

This course provides advanced applications and practical experience in the manufacturing of complex parts. Emphasis is placed on inspection, gaging, and the utilization of machine tools. Upon completion, students should be able to manufacture complex assemblies to specifications.

MAC 222 Advanced CNC Turning 1 3 2
Prerequisites: MAC 122
Corequisites: None

This course covers advanced methods in setup and operation of CNC turning centers. Emphasis is placed on programming and production of complex parts. Upon completion, students should be able to demonstrate skills in programming, operations, and setup of CNC turning centers.

MAC 224 Advanced CNC Milling 1 3 2
Prerequisites: MAC 124
Corequisites: None

This course covers advanced methods in setup and operation of CNC machining centers. Emphasis is placed on programming and production of complex parts. Upon completion, students should be able to demonstrate skills in programming, operations, and setup of CNC machining centers.

MAC 231 CNC Graphics: Turning 1 4 3
Prerequisites: MAC 121
Corequisites: None

This course introduces Computer Numerical Control graphics programming and concepts for turning center applications. Emphasis is placed on the interaction of menus to develop a shape file in a graphics CAM system and to develop tool path geometry and part geometry. Upon completion, students should be able to develop a job plan using CAM software, include machine selection, tool selection. operational sequence, speed, feed, and cutting depth.

	Class	Lab	Credit	Clinical
MAC 232 CNC Graphics: Milling	1	4	3	

Prerequisites: MAC 121
Corequisites: None

This course introduces Computer Numerical Control graphics programming and concepts for machining center applications. Emphasis is placed on developing a shape file in a graphics CAM system and transferring coded information from CAM graphics to the CNC milling center. Upon completion, students should be able to develop a complete job plan using CAM software to create a multi-axis CNC program.

MAC 241 Jigs & Fixtures I	2	6	4	

Prerequisites: MAC 112
Corequisites: None

This course introduces the application and use of jigs and fixtures. Emphasis is placed on design and manufacture of simple jigs and fixtures. Upon completion, students should be able to design and build simple jigs and fixtures.

MAC 242 Jigs & Fixtures II	1	9	4	

Prerequisites: MAC 241
Corequisites: None

This course provides continued study in the application of jigs and fixtures. Emphasis is placed on design and manufacture of complex jigs and fixtures. Upon completion, students should be able to design and build complex jigs and fixtures.

MAS 110 Masonry I	4	18	10	

Prerequisites:
Corequisites: None

This course introduces the basic principles of construction with masonry units. Topics include history of the masonry field, safety practices, blueprint reading, and principles of laying masonry units to the line using tools, equipment, and materials. Upon completion, students should be able to demonstrate knowledge of safety practices, blueprint reading, and basic tool use; identify materials; operate machinery; and lay masonry units.

MAS 120 Masonry II	4	18	10	

Prerequisites: MAS 110
Corequisites: None

This course provides practical experience in cost estimating, foundations, bonding variations, expansion joints, wall ties, building codes, and other related topics. Emphasis is placed on material estimation, layout of footing, construction of walls, reinforcements, scaffolding, insulating, and building codes. Upon completion, students should be able to determine cost, plan sound building procedures, construct masonry projects, and apply building codes.

	Class	Lab	Credit	Clinical
MAS 130 Masonry III	6	6	8	

Prerequisites: MAS 120
Corequisites: None

This course provides fundamentals and skills used in masonry construction. Emphasis is placed on building chimneys, fireplaces, columns, concrete masonry, and arches; using materials economically; satisfying needs and expectations; and proper work ethics. Upon completion, students should be able to build structures covered in the course, demonstrate increased speed and accuracy, and make smooth transitions between construction stages.

MAT 060 Essential Mathematics	3	2	4	

Prerequisites: MAT 050
Corequisites: None

This course is a comprehensive study of mathematical skills which should provide a strong mathematical foundation to pursue further study. Topics include principles and applications of decimals, fractions, percents, ratio and proportion, order of operations, geometry, measurement, and elements of algebra and statistics. Upon completion, students should be able to perform basic computations and solve relevant, multi-step mathematical problems using technology where appropriate.

MAT 070 Introductory Algebra	3	2	4	

Prerequisites: MAT 060
Corequisites: RED 080 or ENG 085

This course establishes a foundation in algebraic concepts and problem solving. Topics include signed numbers, exponents, order of operations, simplifying expressions, solving linear equations and inequalities, graphing, formulas, polynomials, factoring, and elements of geometry. Upon completion, students should be able to apply the above concepts in problem solving using appropriate technology.

MAT 080 Intermediate Algebra	3	2	4	

Prerequisites: MAT 070
Corequisites: RED 080 or ENG 085

This course continues the study of algebraic concepts with emphasis on applications. Topics include factoring; rational expressions; rational exponents; rational, radical, and quadratic equations; systems of equations; inequalities; graphing; functions; variations; complex numbers; and elements of geometry. Upon completion, students should be able to apply the above concepts in problem solving using appropriate technology.

MAT 095 Algebraic Concepts	3	0	3	

Prerequisites: None
Corequisites: None

This course covers algebraic concepts with an emphasis on applications. Topics include linear, quadratic, absolute value,

Class Lab Credit Clinical

rational and radical equations, sets, real and complex numbers, exponents, graphing, formulas, polynomials, systems of equations, inequalities and functions. Upon completion, students should be able to apply the abovee topics in problem solving using appropriate technology.

MAT 101 Applied Mathematics I 2 2 3
Prerequisites: MAT 060
Corequisites: None

This course is a comprehensive review of arithmetic with basic algebra designed to meet the needs of certificate and diploma programs. Topics include arithmetic and geometric skills used in measurement, ratio and proportion, exponents and roots, applications of percent, linear equations, formulas, and statistics. Upon completion, students should be able to solve practical problems in their specific areas of study.

MAT 102 Applied Mathematics II 2 2 3
Prerequisites: MAT 101
Corequisites: None

This course introduces the concepts of right triangle trigonometry and geometry with emphasis on applications to problem solving. Topics include the basic definitions and properties of plane and solid geometry, area and volume, and right triangle trigonometry. Upon completion, students should be able to solve applied problems both independently and collaboratively.

MAT 115 Mathematical Models 2 2 3
Prerequisites: MAT 070
Corequisites: None

This course develops the ability to utilize mathematical skills and technology to solve problems at a level found in non-mathematics-intensive programs. Topics include applications to percent, ratio and proportion, formulas, statistics, functional notation, linear functions and their groups, probability, sampling techniques, scatter plots, and modeling. Upon completion, students should be able to solve practical problems, reason and communicate with mathematics, and work confidently, collaboratively, and independently.

MAT 120 Geometry and Trig 2 2 3
Prerequisites: MAT 070
Corequisites: None

This course introduces the concepts of plane trigonometry and geometry with emphasis on applications to problem solving. Topics include the basic definitions and properties of plane and solid geometry, area and volume, right triangle trigonometry, and oblique triangles. Upon completion, students should be able to solve applied problems both independently and collaboratively using technology.

Class Lab Credit Clinical

MAT 121 Algebra/Trig I 2 2 3
Prerequisites: MAT 070
Corequisites: None

This course provides an integrated approach to technology and the skills required to manipulate, display, and interpret mathematical functions and formulas used in problem solving. Topics include simplification, evaluation, and solving of algebraic, radical, exponential, and logarithmic functions; descriptive statistics; right triangle trigonometry; and the use of technology. Upon completion, students should be able to demonstrate an understanding of the use of mathematics and technology to solve problems and analyze and communicate results.

MAT 122 Algebra/Trig II 2 2 3
Prerequisites: MAT 121
Corequisites: None

This course extends the concepts covered in MAT 121 to include additional topics in algebra, function analysis, trigonometry, and systems of equations. Topics include translation and scaling of functions, Sine Law, Cosine Law, complex numbers, vectors, statistics, and systems of equations. Upon completion, students should be able to demonstrate an understanding of the use of technology to solve problems and to analyze and communicate results.

MAT 140 Survey of Mathematics 3 0 3
Prerequisites: MAT 070
Corequisites: None

This course provides an introduction in a non-technical setting to selected topics in mathematics. Topics may include, but are not limited to, sets, logic, probability, statistics, matrices, mathematical systems, geometry, topology, mathematics of finance, and modeling. Upon completion, students should be able to understand a variety of mathematical applications, think logically, and be able to work collaboratively and independently.

MAT 140A Survey of Math Lab 0 2 1
Prerequisites: MAT 070
Corequisites: MAT 140

This course is a laboratory for MAT 140. Emphasis is placed on experiences that enhance the materials presented in the class. Upon completion, students should be able to solve problems, apply critical thinking, work in teams, and communicate effectively.

MAT 151 Statistics I 3 0 3
Prerequisites: MAT 080 or MAT 090
Corequisites: None

This course provides a project-based approach to the study of basic probability, descriptive and inferential statistics, and

Class Lab Credit Clinical

decision making. Emphasis is placed on measures of central tendency and dispersion, correlation, regression, discrete and continuous probability distributions, quality control, population parameter estimation, and hypothesis testing. Upon completion, students should be able to describe important characteristics of a set of data and draw inferences about a population from sample data.

MAT 151A Statistics I Lab 0 2 1
Prerequisites: MAT 080 or MAT 090
Corequisites: MAT 151

This course is a laboratory for MAT 151. Emphasis is placed on experiences that enhance the materials presented in the class. Upon completion, students should be able to solve problems, apply critical thinking, work in teams, and communicate effectively.

MAT 171 Precalculus Algebra 3 0 3
Prerequisites: MAT 080 or MAT 090
Corequisites: None

This is the first of two courses designed to emphasize topics which are fundamental to the study of calculus. Emphasis is placed on equations and inequalities, functions (linear, polynomial, rational), systems of equations and inequalities, and parametric equations. Upon completion, students should be able to solve practical problems and use appropriate models for analysis and predictions.

MAT 171A Precal Algebra Lab 0 2 1
Prerequisites: MAT 080 or MAT 090
Corequisites: MAT 171

This course is a laboratory for MAT 171. Emphasis is placed on experiences that enhance the materials presented in the class. Upon completion, students should be able to solve problems, apply critical thinking, work in teams, and communicate effectively.

MAT 172 Precalculus Trig 3 0 3
Prerequisites: MAT 171
Corequisites: None

This is the second of two courses designed to emphasize topics which are fundamental to the study of calculus. Emphasis is placed on properties and applications of transcendental functions and their graphs, right and oblique triangle trigonometry, conic sections, and vectors. Upon completion, students should be able to solve practical problems and use appropriate models for analysis and prediction.

MAT 172A Precalculus Trig Lab 0 2 1
Prerequisites: MAT 171
Corequisites: MAT 172

This course is a laboratory for MAT 172. Emphasis is placed on experiences that enhance the materials presented in the class. Upon completion, students should be able to solve problems, apply critical thinking, work in teams, and communicate effectively.

MAT 175 Precalculus 4 0 4
Prerequisites: High School Algebra III/Trigonometry
Corequisites: None

This course provides an intense study of the topics which are fundamental to the study of calculus. Emphasis is placed on functions and their graphs with special attention to polynomial, rational, exponential, logarithmic and trigonometric functions, and analytic trigonometry. Upon completion, students should be able to solve practical problems and use appropriate models for analysis and prediction.

MAT 175A Precalculus Lab 0 2 1
Prerequisites: High School Algebra III/Trigonometry
Corequisites: MAT 175

This course is a laboratory for MAT 175. Emphasis is placed on experiences that enhance the materials presented in the class. Upon completion, students should be able to solve problems, apply critical thinking, work in teams, and communicate effectively.

MAT 271 Calculus I 3 2 4
Prerequisites: MAT 172 or MAT 175
Corequisites: None

This course covers in depth the differential calculus portion of a three-course calculus sequence. Topics include limits, continuity, derivatives, and integrals of algebraic and transcendental functions of one variable, with applications. Upon completion, students should be able to apply differentiation and integration techniques to algebraic and transcendental functions.

MAT 272 Calculus II 3 2 4
Prerequisites: MAT 271
Corequisites: None

This course provides a rigorous treatment of integration and is the second calculus course in a three-course sequence. Topics include applications of definite integrals, techniques of integration, indeterminate forms, improper integrals, infinite series, conic sections, parametric equations, polar coordinates, and differential equations. Upon completion, students should be able to use integration and approximation techniques to solve application problems.

MAT 273 Calculus III 3 2 4
Prerequisites: MAT 272
Corequisites: None

This course covers the calculus of several variables and is third calculus course in a three-course sequence. Topics include functions of several variables, partial derivatives, multiple

Class Lab Credit Clinical

integrals, solid analytical geometry, vector-valued functions, and line and surface integrals. Upon completion, students should be able to solve problems involving vectors and functions of several variables.

MAT 280 Linear Algebra 3 0 3
Prerequisites: MAT 271
Corequisites: None

This course provides a study of linear algebra topics with emphasis on the development of both abstract concepts and applications. Topics include vectors, systems of equations, matrices, determinants, vector spaces, linear transformations in two or three dimensions, eigenvectors, eigenvalues, diagonalization and orthogonality. Upon completion, students should be able to demonstrate both an understanding of the theoretical concepts and appropriate use of linear algebra models to solve application problems.

MAT 285 Differential Equations 3 0 3
Prerequisites: MAT 272
Corequisites: None

This course provides an introduction to ordinary differential equations with an emphasis on applications. Topics include first-order, linear higher-order, and systems of differential equations; numerical methods; series solutions; eigenvalues and eigenvectors; Laplace transforms; and Fourier series. Upon completion, students should be able to use differential equations to model physical phenomena, solve the equations, and use the solutions to analyze the phenomena.

MEC 110 Intro to CAD/CAM 1 2 2
Prerequisites:
Corequisites: None

This course introduces CAD/CAM. Emphasis is placed on transferring part geometry from CAD to CAM for the development of a CNC-ready program. Upon completion, students should be able to use CAD/CAM software to produce a CNC program.

MEC 111 Machine Processes I 2 3 3
Prerequisites:
Corequisites: None

This course introduces safety, hand tools, machine processes, measuring instruments, and the operation of machine shop equipment. Topics include safety, measuring tools, and the basic setup and operation of lathes, milling machines, drill presses, and saws. Upon completion, students should be able to manufacture a simple part to a specified tolerance.

Class Lab Credit Clinical

MEC 112 Machine Processes II 2 3 3
Prerequisites: MEC 111
Corequisites: None

This course covers advanced use of milling machines and lathes. Emphasis is placed on safety and compound setup of milling machines and lathes for manufacture of projects with a specified fit. Upon completion, students should be able to demonstrate proper procedures for manufacture of assembled parts.

MEC 130 Mechanisms 2 3 3
Prerequisites:
Corequisites: None

This course introduces the purpose and action of various mechanical devices. Topics include cams, cables, gear trains, differentials, screws, belts, pulleys, shafts, levers, lubricants, and other devices used to transmit or control signals. Upon completion, students should be able to analyze, maintain, and troubleshoot the components of mechanical systems.

MEC 131 Metalworking Process 2 3 3
Prerequisite: None
Corequisite: None

This course introduces the standard practices that are found in a metal workshop. Topics include the proper care/use of basic hand tools and precision measuring instruments and layout procedures/operation of lathes, drill presses, grinders, milling machines, and power saws. Upon completion, students should be able to work safely in the metal workshop and use basic metalworking equipment.

MEC 145 Mfg Materials I 2 3 3
Prerequisites:
Corequisites: None

This course introduces a variety of manufacturing materials and common processing techniques. Emphasis is placed on the processing, testing, and application of materials such as wood, metals, plastics, ceramics, and composites. Upon completion, students should be able to demonstrate an understanding of fundamental engineering applications for a variety of materials, including their process capabilities and limitations.

MEC 161 Manufacturing Process I 3 0 3
Prerequisites:
Corequisites: None

This course provides the fundamental principles of processing materials into usable forms for the customer. Emphasis is placed on material forming, removal, and value-added processing provided to the customer by the manufacturers. Upon completion, students should be able to apply principles of traditional and non-traditional processing for metals and nonmetals.

	Class	Lab	Credit	Clinical
MEC 161A Manufacturing Proc I Lab	0	3	1	

Prerequisites:
Corequisites: MEC 161

This course is a laboratory for MEC 161. Emphasis is placed on experiences that enhance the materials presented in MEC 161. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in MEC 161.

MEC 172 Intro to Metallurgy	2	2	3

Prerequisites:
Corequisites: None

This course covers the production, properties, testing, classification, microstructure, and heat-treating effects of ferrous and non-ferrous metals. Topics include the iron-carbon phase diagram, ITT diagram, ANSI code, quenching, senescing, and other processes concerning metallurgical transformations. Upon completion, students should be able to understand the iron-carbon phase diagram, ITT diagram, microstructure images, and other phenomena concerning the behavior of metals.

MEC 180 Engineering Materials	2	3	3

Prerequisites:
Corequisites: None

This course covers the physical and mechanical properties of materials. Topics include testing, heat treating, ferrous and non-ferrous metals, plastics, composites, and material selection. Upon completion, students should be able to specify basic tests and properties and select appropriate materials on the basis of specific properties.

MEC 231 Comp-Aided Manufact I	1	4	3

Prerequisites:
Corequisites: None

This course introduces computer-aided manufacturing (CAM) applications and concepts. Emphasis is placed on developing/defining part geometry and the processing of information needed to manufacture parts. Upon completion, students should be able to demonstrate skills in defining part geometry, program development, and code generation using CAM software.

MEC 232 Comp-Aided Manufact II	1	4	3

Prerequisites: MEC 231
Corequisites: None

This course provides an in-depth study of CAM applications and concepts. Emphasis is placed on the manufacturing of complex parts using computer-aided manufacturing software. Upon completion, students should be able to manufacture complex parts using CAM software.

	Class	Lab	Credit	Clinical
MEC 250 Statics & Strength of Mat	4	3	5	

Prerequisites: PHY 131 or PHY 151
Corequisites: None

This course covers the concepts and principles of statics and stress analysis. Topics include systems of forces on structures in equilibrium and analysis of stresses and strains on these components. Upon completion, students should be able to analyze forces and the results of stresses and strains on structural components.

MEC 265 Fluid Mechanics	2	2	3

Prerequisites:
Corequisites: None

This course covers the physical behavior of fluids and fluid systems. Topics include fluid statics and dynamics, laminar and turbulent flow, Bernoulli's Equation, components, applications, and other related topics. Upon completion, students should be able to apply fluid power principles to practical applications.

MED 121 Medical Terminology I	3	0	0	3

Prerequisites:
Corequisites: None

This course introduces prefixes, suffixes, and word roots used in the language of medicine. Topics include medical vocabulary and the terms that relate to the anatomy, physiology, pathological conditions, and treatment of selected systems. Upon completion, students should be able to pronounce, spell, and define medical terms as related to selected body systems and their pathological disorders.

MED 122 Medical Terminology II	3	0	0	3

Prerequisites: MED 121
Corequisites: None

This course is the second in a series of medical terminology courses. Topics include medical vocabulary and the terms that relate to the anatomy, physiology, pathological conditions, and treatment of selected systems. Upon completion, students should be able to pronounce, spell, and define medical terms as related to selected body systems and their pathological disorders.

MKT 120 Principles of Marketing	3	0	3

Prerequisites:
Corequisites: None

This course introduces principles and problems of marketing goods and services. Topics include promotion, placement, and pricing strategies for products. Upon completion, students should be able to apply marketing principles in organizational decision making.

Class Lab Credit Clinical

MNT 110 Intro Maint Procedures 1 3 2
Prerequisites:
Corequisites: None

This course covers basic maintenance fundamentals for power transmission equipment. Topics include equipment inspection, lubrication, alignment, and other scheduled maintenance procedures. Upon completion, students should be able to demonstrate knowledge of accepted maintenance procedures and practices according to current industry standards.

MNT 111 Maintenance Practices 1 3 2
Prerequisites:
Corequisites: None

This course provides in-depth theory and practical applications relating to predictive and preventive maintenance programs. Emphasis is placed on equipment failure, maintenance management software, and techniques such as vibration and infrared analysis. Upon completion, students should be able to demonstrate an understanding of modern analytical and documentation methods.

MNT 220 Rigging & Moving 1 3 2
Prerequisites:
Corequisites: None

This course covers the principles of safe rigging practices for handling, placing, and moving heavy machinery and equipment. Topics include safety estimation, positioning of equipment slings, rollers, jacks, levers, dollies, ropes, chains, padding, and other related topics. Upon completion, students should be able to relocate and set up equipment safely using accepted rigging practices.

MNT 230 Pumps & Piping Systems 1 3 2
Prerequisites:
Corequisites: None

This course covers pump installation and maintenance and related valves and piping systems. Topics include various types of pump systems and their associated valves, piping requirements, and other related topics. Upon completion, students should be able to select and install pump and piping systems and demonstrate proper maintenance and troubleshooting procedures.

MSC 110 Training Cruise I 0 3 1
Prerequisites:
Corequisites: Full time Marine Technology enrollment or permission of the Department Chair

This course covers the skills necessary to live and work safely aboard oceangoing research vessels. Emphasis is placed on the unique safety requirements aboard oceangoing vessels and the skills needed for oceanographic work. Upon completion, students should be able to safely live and work aboard an oceanographic research vessel conducting offshore scientific operations.

MSC 112 Training Cruise II 0 3 1
Prerequisites: MSC 110
Corequisites: Full time Marine Technology enrollment or permission of the Department Chair

This course covers the skills necessary to live and work safely aboard oceangoing research vessels. Emphasis is placed on maintaining a 24-hour navigation log and weather watch and safely conducting over-the-side biological sampling operations. Upon completion, students should be able to maintain a weather log, plot a cruise track, and safely use biological sampling gear.

MSC 114 Training Cruise III 0 3 1
Prerequisites: MSC 112
Corequisites: Full time Marine Technology enrollment or permission of the Department Chair

This course covers the skills necessary to live and work safely aboard oceangoing research vessels. Emphasis is placed on utilizing the navigational and hydrographical techniques needed to conduct an offshore bathymetric survey. Upon completion, students should be able to accurately navigate a vessel, gather bathymetric data, and prepare a depth contour plot of a predetermined quadrant.

MSC 122 Boat Hand/Seamanship 2 3 3
Prerequisites:
Corequisites: None

This course covers the skills of boat handling, the practice of seamanship, and safety and survival in the marine environment. Topics include safe boat handling, seamanship under adverse conditions, fire fighting, man overboard rescue, PFDs, EPIRBs, distress signals, lifeboats, and life rafts. Upon completion, students should be able to competently operate small powerboats and demonstrate proficiency in the use of marine fire fighting and lifesaving equipment.

MSC 124 Industrial Skills 1 4 3
Prerequisites:
Corequisites: None

This course offers a practical approach to the mechanical and technical skills needed by technicians in a variety of marine-related jobs. Topics include industrial safety, measurement systems, hand and power tools, fasteners, corrosion protection, project design, and construction and cost estimation. Upon completion, students should be able to safely use hand and/or power tools and understand a variety of measurement and pricing systems.

	Class	Lab	Credit	Clinical

MSC 126 Marine Engines 1 2 2
Prerequisites:
Corequisites: None

This course covers fundamental theory, troubleshooting, and maintenance of marine engines and related equipment, especially outboards. Emphasis is placed on maintenance and operational procedures, including corrosion control, lubrication, propellers, carburetors, two-cycle theory, magneto ignition, batteries, starters, alternators, and trailers. Upon completion, students should be able to understand how a marine engine and related components work, perform minor repairs, and properly maintain them.

MSC 132 Fishing Gear Tech I 2 3 3
Prerequisites:
Corequisites: None

This course introduces modern rope seamanship and fishing gear theory, design, repair, and analysis as it relates to fisheries research. Emphasis is placed on various practical knots, rope splicing, marine hardware, biological sampling gear classifications, and the basics of net construction, repair, and design. Upon completion, students should be able to implement marlin spike skills; repair netted material; and identify, design, and construct various types of biological entrapment and entanglement gear.

MSC 134 Fishing Gear Tech II 1 2 2
Prerequisites: MSC 132
Corequisites: None

This course offers further experience and instruction in fishing gear theory and design and the collection and recording of biological data. Emphasis is placed on the general skills needed to design, construct, and repair complex sampling gear and be employed as a fisheries technician. Upon completion, students should be able to understand and apply fishing gear design and construction techniques and collect, compile, and record biological data.

MSC 150 Marine Navigation 2 3 3
Prerequisites:
Corequisites: None

This course provides training in marine piloting and electronic navigation techniques. Topics include use of charts, instruments, navigational aids, compasses, nautical publications, radar, GPS, LORAN, and depth sounders, with an emphasis on plotting techniques. Upon completion, students should be able to demonstrate competence in the safe navigation of vessels utilizing and interpreting information obtained from navigational aids.

	Class	Lab	Credit	Clinical

MSC 152 Marine Instrumentation 1 2 2
Prerequisites:
Corequisites: None

This course introduces the various types of oceanographic instrumentation used for the collection of data and samples by the oceanographic community. Emphasis is placed on data recording procedures, proper operation, safe handling, and calibration, maintenance, and repair of instruments. Upon completion, students should be able to safely and correctly use the instruments covered to conduct accurate field measurements.

MSC 154 Marine Photography 2 2 3
Prerequisites:
Corequisites: None

This course introduces the basic concepts, processes, and techniques of photography with emphasis on marine applications. Topics include proper camera operation, composition, exposure, lighting techniques, and the processing of black and white films and papers. Upon completion, students should be able to demonstrate proficiency in the operation of a camera and portable lighting tools with consistent exposures and darkroom techniques.

MSC 162 Oceanography I 3 0 3
Prerequisites:
Corequisites: None

This course provides a general description of the oceans, including their origin, chemical and physical characteristics, and circulation. Topics include a history of oceanography, sea water chemistry, ocean physics, atmospheric circulation and weather, oceanic circulation, and tides. Upon completion, students should be able to describe general atmospheric circulation, the physics and chemistry of sea water, and their effect on oceanic circulation.

MSC 164 Oceanography II 1 2 2
Prerequisites:
Corequisites: None

This course provides a general description of the earth's interior, geological features beneath the sea, and coastal geology. Topics include bathymetry, plate tectonics, sedimentation, types of rocks and minerals, seismic profiling, waves, and coasts. Upon completion, students should be able to describe the geological features of the earth beneath the sea and the effect of waves on coasts.

MSC 172 Marine Biology 2 3 3
Prerequisites:
Corequisites: None

This course utilizes field trips to the beach, salt marsh, and other habitats to study marine animals and plants in their natural communities. Topics include divisions of the marine

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environment, distribution of life in the ocean, and the interrelationships of marine organisms in various habitats. Upon completion, students should be able to scientifically identify various marine species and describe the role they fill in their biological communities.

MSC 174 Marine Invertebrate Zoology 3 2 4
Prerequisites:
Corequisites: None

This course covers the behavior and classification of marine invertebrates. Topics include identification, feeding behavior, reproduction, and symbiotic relationships of marine invertebrates. Upon completion, students should be able to identify and classify marine invertebrates and demonstrate an understanding of their basic anatomy and physiology.

MSC 182 Water Analysis I 1 2 2
Prerequisites:
Corequisites: None

This course is the first of two covering the practical analysis of water samples with an emphasis on marine-oriented techniques and procedures. Topics include basic chemistry laboratory skills and the use of wet chemistry and field meters to measure various chemically and biologically important parameters. Upon completion, students should be able to measure pH, salinity, turbidity, dissolved oxygen, and nitrite/nitrate nutrients in natural water samples.

MSC 216 Training Cruise IV 0 3 1
Prerequisites: MSC 114
Corequisites: Full time Marine Technology enrollment or permission of the Department Chair

This course covers the skills necessary to live and work safely aboard oceangoing research vessels. Emphasis is placed on conducting standard hydrographic stations using various oceanographic samplers. Upon completion, students should be able to set up and conduct a hydrographic station and collect accurate data using various types of marine instrumentation.

MSC 218 Training Cruise V 0 3 1
Prerequisites: MSC 216
Corequisites: Full time Marine Technology enrollment or permission of the Department Chair

This course covers the skills necessary to live and work safely aboard oceangoing research vessels. Emphasis is placed on conducting a broad range of oceanographic survey techniques, including chemical, meteorological, geological, physical, and biological surveys. Upon completion, students should be able to demonstrate competence in the skills required of a marine technician aboard an oceanographic or survey vessel.

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MSC 254 Marine Data Processing 1 3 2
Prerequisites: CIS 111 and MSC 152
Corequisites: None

This course introduces standard oceanographic procedures used to process and analyze oceanographic data. Emphasis is placed on the use of standard recording procedures and computer applications for processing and analyzing oceanographic data. Upon completion, students should be able to record and analyze oceanographic data using standard procedures along with computer-based applications.

MSC 256 Cart/Hydrograp Survey 1 3 2
Prerequisites:
Corequisites: None

This course covers basic surveying and cartography techniques as they apply to marine research. Topics include topographic map and bathymetric chart basics, including symbols, contours, elevations, coordinate systems, and basic survey instruments, modeling, and field projects. Upon completion, students should be able to use topographic and bathymetric maps as a research tool and set up and conduct field surveys.

MSC 258 Multimedia Presentation 0 3 1
Prerequisites: CIS 111 and MSC 154
Corequisites: None

This course provides practical experience with a variety of visual presentation methods for scientific and generalized information presentation. Emphasis is placed on statistical data representation and effective presentations, including the use of overheads, computers, handouts, and other visual presentation methods. Upon completion, students should be able to prepare and present a color slide show, a computerized presentation, and a scientific paper with a variety of graphics.

MSC 276 Marine Vertebrate Zoo 3 2 4
Prerequisites:
Corequisites: None

This course covers the behavior and classification of marine fishes, reptiles, birds, and mammals. Topics include identification, feeding behavior, reproduction, migration, and other marine vertebrate characteristics. Upon completion, students should be able to identify marine vertebrates and demonstrate an understanding of the methods marine vertebrates use to survive in the ocean.

MSC 282 Water Analysis II 1 3 2
Prerequisites: MSC 182
Corequisites: None

The course is the second of two covering the practical analysis of water samples with an emphasis on marine-oriented techniques and procedures. Topics include introductory microbiology techniques and the use of wet chemistry and laboratory instruments to measure various chemically and biologically

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important parameters. Upon completion, students should be able to culture microbes and measure levels of ions, trace metals, fluorescent dyes, and the phosphate and silicate nutrients.

MUS 110 Music Appreciation 3 0 3
Prerequisites:
Corequisites: None

This course is a basic survey of the music of the Western world. Emphasis is placed on the elements of music, terminology, composers, form, and style within a historical perspective. Upon completion, students should be able to demonstrate skills in basic listening and understanding of the art of music.

MUS 112 Introduction to Jazz 3 0 3
Prerequisites:
Corequisites: None

This course introduces the origins and musical components of jazz and the contributions of its major artists. Emphasis is placed on the development of discriminating listening habits, as well as the investigation of the styles and structural forms of the jazz idiom. Upon completion, students should be able to demonstrate skills in listening and understanding this form of American music.

MUS 113 American Music 3 0 3
Prerequisites:
Corequisites: None

This course introduces various musical styles, influences, and composers of the United States from pre-Colonial times to the present. Emphasis is placed on the broad variety of music particular to American culture. Upon completion, students should be able to demonstrate skills in basic listening and understanding of American music.

NET 110 Data Comm/Networking 2 2 3
Prerequisites:
Corequisites: None

This course introduce data communication and networking. Topics include telecommunication standards, protocols, equipment, network topologies, communication software, LANs, WANs, the Internet, and network operating systems. Upon completion, students should be able to demonstrate understanding of the fundamentals of telecommunication and networking.

NET 115 Telecom Fundamentals 1 2 2
Prerequisites: CIS 110 or CIS 111
Corequisites: None

This course covers the fundamentals of the electronic transfer of information for those who have not received credit for NET 110. Topics include terminal emulation software usage, file transfer methods, PC-based fax/modem/voice-mail operations, accessing and navigating the Internet, and bulletin boards. Upon completion, students should be able to access and use online services and the Internet, send and receive e-mail, and perform other basic telecommunication operations.

NET 120 Network Install/Admin I 2 2 3
Prerequisites: NET 110
Corequisites: None

This course covers the installation and administration of network hardware and system software. Topics include network topologies, various network operating systems, server and workstation installation and configuration, printer services, and connectivity options. Upon completion, students should be able to perform basic installation and administration of departmental networks.

NET 260 Internet Dev & Support 3 0 3
Prerequisites: NET 110
Corequisites: None

This course covers issues relating to the development and implementation of Internet related tools and services. Topics include Internet organization, site registration, e-mail servers, Web servers, Web page development, legal issues, firewalls, multimedia, TCP/IP, service providers, FTP, list servers, and gateways. Upon completion, students should be able to develop and support the Internet services needed within an organization.

NUR 101 Practical Nursing I 7 6 6 11
Prerequisites: Enrollment in the Practical Nursing program
Corequisites: None

This course introduces concepts as related to the practical nurse's caregiver and discipline-specific roles. Emphasis is placed on the nursing process, legal/ethical/professional issues, wellness/illness patterns, and basic nursing skills. Upon completion, students should be able to demonstrate beginning understanding of nursing process to promote/maintain/restore optimum health for diverse clients throughout the life span. *This is a diploma-level course.*

NUR 102 Practical Nursing II 8 0 12 12
Prerequisites: NUR 101, BIO 106, PSY 150
Corequisites: None

This course includes more advanced concepts as related to the practical nurse's caregiver and discipline-specific roles. Emphasis is placed on the nursing process, delegation, cost effectiveness, legal/ethical/professional issues, and wellness/illness patterns. Upon completion, students should be able to begin participating in the nursing process to promote/maintain/restore optimum health for diverse clients throughout the life span. *This is a diploma-level course.*

NUR 103 Practical Nursing III — Class 6, Lab 0, Credit 12, Clinical 10
Prerequisites: NUR 102, PSY 241
Corequisites: None

This course focuses on use of nursing/related concepts by practical nurses as providers of care/members of discipline in collaboration with health team members. Emphasis is placed on the nursing process, wellness/illness patterns, entry-level issues, accountability, advocacy, professional development, evolving technology, and changing health care delivery systems. Upon completion, students should be able to use the nursing process to promote/maintain/restore optimum health for diverse clients throughout the life span. *This is a diploma-level course.*

NUR 107 LPN Refresher — Class 9, Lab 9, Credit 12
Prerequisites: Completion of an LPN program. Verification of Previous Licensure as an LPN
Corequisites: None

This refresher course is designed to provide an independent didactic review for the previously licensed Practical Nurse whose license has lapsed. Emphasis is placed on common medical-surgical conditions and nursing approaches to their management, including mental health principles, pharmacological concepts, and safe clinical practice. Upon completion, students will be eligible to apply for reinstatement of licensure.

NUR 110 Nursing I — Class 5, Lab 3, Credit 6, Clinical 8
Prerequisites:Admission to the Associate Degree Nursing program
Corequisites: BIO 168, PSY 150

This course introduces concepts basic to beginning nursing practice. Emphasis is placed on introducing the nurse's role as provider of care, manager of care, and member of the discipline of nursing. Upon completion, students should be able to demonstrate beginning competence in caring for individuals with common alterations in health.

NUR 120 Nursing II — Class 5, Lab 3, Credit 6, Clinical 8
Prerequisites: NUR 110, BIO 168, PSY 150
Corequisites: BIO 169, PSY 241

This course provides an expanded knowledge base for delivering nursing care to individuals of various ages. Emphasis is placed on developing the nurse's role as provider of care, manager of care, and member of the discipline of nursing. Upon completion, students should be able to participate in the delivery of nursing care for individuals with common alterations in health.

NUR 130 Nursing III — Class 4, Lab 3, Credit 6, Clinical 7
Prerequisites: NUR 120, PSY 241, BIO 169
Corequisites: None

This course provides an expanded knowledge base for delivering nursing care to individuals of various ages. Emphasis is placed on expanding the nurse's role as provider of care, manager of care, and member of the discipline of nursing. Upon completion, students should be able to deliver nursing care to individuals with common alterations in health. Concepts of Leadership and Management are addressed in this course.

NUR 189 Nursing Transition — Class 1, Lab 3, Credit 0, Clinical 2
Prerequisites:
Corequisites: None

This course is designed to assist the licensed practical nurse in transition to the role of the associate degree nurse. Topics include the role of the registered nurse, nursing process, homeostasis, and validation of selected nursing skills and physical assessment. Upon completion, students should be able to articulate into the ADN program at the level of the generic student.

NUR 210 Nursing IV — Class 5, Lab 3, Credit 12, Clinical 10
Prerequisites: NUR 130
Corequisites: None

This course provides an expanded knowledge base for delivering nursing care to individuals of various ages. Emphasis is placed on using collaboration as a provider of care, manager of care, and member of the discipline of nursing. Upon completion, students should be able to modify nursing care for individuals with common alterations in health. This will include both physical and mental health as well as current Issues and Trends.

NUR 220 Nursing V — Class 4, Lab 3, Credit 15, Clinical 10
Prerequisites: NUR 210
Corequisites: None

This course provides an expanded knowledge base for delivering nursing care to individuals of various ages. Emphasis is placed on the nurse's role as an independent provider and manager of care for a group of individuals and member of a multidisciplinary team. Upon completion, students should be able to provide comprehensive nursing care to a group of individuals with common complex health alterations.

NUT 110 Nutrition — Class 3, Lab 0, Credit 3
Prerequisites:
Corequisites: None

This course covers basic principles of nutrition and their relationship to human health. Topics include meeting nutritional needs of healthy people, menu modification based on special dietary needs, food habits, and contemporary problems associated with food selection. Upon completion, students should be able to apply basic nutritional concepts to food preparation and selection.

OST 131 Keyboarding Class 1 Lab 2 Credit 2 Clinical
Prerequisites:
Corequisites: None

This course covers basic keyboarding skills. Emphasis is placed on the touch system, correct techniques, and development of speed and accuracy. Upon completion, students should be able to key at an acceptable speed and accuracy level using the touch system.

OST 134 Text Entry & Formatting 3 2 4
Prerequisites: OST 131
Corequisites: None

This course is designed to provide the skills needed to increase speed, improve accuracy, and format documents. Topics include letters, memos, tables, and business reports. Upon completion, students should be able to produce mailable documents.

OST 136 Word Processing 1 2 2
Prerequisites:CIS 111 or OST 131 or Permission of Instructor
Corequisites: None

This course introduces word processing concepts and applications. Topics include preparation of a variety of documents and mastery of specialized software functions. Upon completion, students should be able to work effectively in a computerized word processing environment.

OST 149 Med Legal Issues 2 0 2
Prerequisites:
Corequisites: None

This course introduces the complex legal, moral, and ethical issues involved in providing health-care services. Emphasis is placed on the legal requirements of medical practices; the relationship of physician, patient, and office personnel; professional liabilities; and medical practice liability. Upon completion, students should be able to demonstrate a working knowledge of current medical law and accepted ethical behavior. *This course is a unique concentration requirement in the Medical Office Systems Technology concentration in the Office Systems Technology program.*

OST 164 Text Editing Applications 3 0 3
Prerequisites:
Corequisites: None

This course provides a comprehensive study of editing skills needed in the workplace. Emphasis is placed on grammar, punctuation, sentence structure, proofreading, and editing. Upon completion, students should be able to use reference materials to compose and edit text.

OST 184 Records Management 1 2 2
Prerequisites:
Corequisites: None

This course includes the creation, maintenance, protection, security, and disposition of records stored in a variety of media forms. Topics include alphabetic, geographic, subject, and numeric filing methods. Upon completion, students should be able to set up and maintain a records management system.

OST 201 Medical Transcription I 3 2 4
Prerequisites: OST 136 and OST 164
Corequisites: MED 122 or OST 142

This course introduces dictating equipment and typical medical dictation. Emphasis is placed on efficient use of equipment, dictionaries, PDRs, and other reference materials. Upon completion, students should be able to efficiently operate dictating equipment and to accurately transcribe a variety of medical documents in a specified time. *This course is intended for diploma programs.*

OST 202 Medical Transcription II 3 2 4
Prerequisites: OST 201
Corequisites: None

This course provides additional practice in transcribing documents from various medical specialties. Emphasis is placed on increasing transcription speed and accuracy and understanding medical procedures and terminology. Upon completion, students should be able to accurately transcribe a variety of medical documents in a specified time. *This course is intended for diploma programs.*

OST 223 Machine Transcription I 1 2 2
Prerequisites: OST 134, OST 136, and OST 164
Corequisites: None

This course covers the use of transcribing machines to produce mailable documents. Emphasis is placed on appropriate formatting, advanced text editing skills, and transcription techniques. Upon completion, students should be able to transcribe documents into mailable copy.

OST 233 Office Publications Design 2 2 3
Prerequisites: OST 136
Corequisites: None

This course provides entry-level skills in using software with desktop publishing capabilities. Topics include principles of page layout, desktop publishing terminology and applications, and legal and ethical considerations of software use. Upon completion, students should be able to design and produce professional business documents and publications.

	Class	Lab	Credit	Clinical
OST 236 Adv Word/Information Proc	2	2	3	

Prerequisites: OST 136
Corequisites: None

This course develops proficiency in the utilization of advanced word/information processing functions. Topics include tables, graphics, macros, sorting, document assembly, merging, and newspaper and brochure columns. Upon completion, students should be able to produce a variety of complex business documents.

OST 247 CPT Coding in Med Off	1	2	2	

Prerequisites: MED 122 or OST 142
Corequisites: None

This course provides in-depth coverage of procedural coding. Emphasis is placed on CPT and HCPCS rules for Medicare billing. Upon completion, students should be able to properly code procedures and services performed by physicians in ambulatory settings.

OST 248 Diagnostic Coding	1	2	2	

Prerequisites: MED 122 or OST 142
Corequisites: None

This courses provides an in-depth study of diagnostic coding for the medical office. Emphasis is placed on ICD-9-CM codes used on superbills and other encounter forms. Upon completion, students should be able to apply the principles of diagnostic coding in the physician's office.

OST 289 Office Systems Management	2	2	3	

Prerequisites: OST 134, OST 136, and OST 164
Corequisites: None

This course provides a capstone course for the office professional. Topics include administrative office procedures, imaging, communication techniques, ergonomics, and equipment utilization. Upon completion, students should be able to function proficiently in a changing office environment.

PBT 100 Phlebotomy Technology	5	2	0	6

Prerequisites:Enrollment in the Phlebotomy Technology program
Corequisites: PBT 101

This course provides instruction in the skills needed for the proper collection of blood and other specimens used for diagnostic testing. Emphasis is placed on ethics, legalities, medical terminology, safety and universal precautions, health care delivery systems, patient relations, anatomy and physiology, and specimen collection. Upon completion, students should be able to demonstrate competence in the theoretical comprehension of phlebotomy techniques. *This is a certificate-level course.*

	Class	Lab	Credit	Clinical
PBT 101 Phlebotomy Practicum	0	0	9	3

Prerequisites:Enrollment in the Phlebotomy Technology program
Corequisites: PBT 100

This course provides supervised experience in the performance of venipuncture and microcollection techniques in a clinical facility. Emphasis is placed on patient interaction and application of universal precautions, proper collection techniques, special procedures, specimen handling, and data management. Upon completion, students should be able to safely perform procedures necessary for specimen collections on patients in various health care settings. *This is a certificate-level course.*

PCI 161 Intro to Instrumentation	0	2	1	

Prerequisites:
Corequisites: None

This course introduces various industrial and manufacturing process control environments by taking field trips to related industrial facilities. Topics include job descriptions, titles, and opportunities associated with the field of industrial process control instrumentation. Upon completion, students should be able to demonstrate an understanding of the job opportunities available in the field of process control instrumentation.

PCI 162 Instrumentation Controls	2	3	3	

Prerequisites: ELC 112 or ELC 131
Corequisites: None

This course surveys industrial process control instrumentation concepts, devices, and systems. Topics include process control devices and process control applications associated with industrial instrumentation. Upon completion, students should be able to demonstrate a basic understanding of the various industrial process control and instrumentation systems. *This course is a unique concentration requirement of the Instrumentation concentration in the Electronics Engineering Technology program.*

PCI 261 Process Measurement	2	3	3	

Prerequisites:
Corequisites: None

This course introduces the concepts associated with the measurement of different process variables. Topics include theory and applications involved with the process variables of flow, level, pressure, and temperature. Upon completion, students should be able to understand basic process measurements and demonstrate the ability to calibrate process control instrumentation. *This course is a unique concentration requirement of the Instrumentation concentration in the Electronics Engineering Technology program.*

PCI 262 Intro to Process Control 3 3 4
Prerequisites: ELC 131
Corequisites: None

This course introduces process control and related instrumentation devices. Topics include basic process control theory, PID diagrams, and calibration methods associated with transducers, transmitters, control valves, and related process devices. Upon completion, students should be able to understand and troubleshoot basic process control devices and systems. *This course is a unique concentration requirement of the Instrumentation concentration in the Electronics Engineering Technology program.*

PCI 263 Adv Process Control 3 3 4
Prerequisites: PCI 262
Corequisites: None

This course covers advanced process control and instrumentation associated with closed and open loop-type process control and systems. Topics include analysis of cascade, distributed control, feedback, and feedforward process control systems using PID and advanced control applications. Upon completion, students should be able to understand and implement advanced process control and instrumentation systems. *This course is a unique concentration requirement of the Instrumentation concentration in the Electronics Engineering Technology program.*

PCI 264 Process Control PLCs 3 3 4
Prerequisites: ELC 128
Corequisites: None

This course introduces automatic process control implemented with PLC technology. Topics include interfacing and controlling advanced PID control loops and devices using various PLC-based systems. Upon completion, students should be able to demonstrate an understanding of advanced applications of process control and instrumentation systems with PLC-based devices.

PED 110 Fit and Well for Life 1 2 2
Prerequisites:
Corequisites: None

This course is designed to investigate and apply the basic concepts and principles of lifetime physical fitness and other health-related factors. Emphasis is placed on wellness through the study of nutrition, weight control, stress management, and consumer facts on exercise and fitness. Upon completion, students should be able to plan a personal, lifelong fitness program based on individual needs, abilities, and interests.

PED 152 Swimming-Beginning 0 2 1
Prerequisites:
Corequisites: None

This course is designed for non-swimmers and beginners. Emphasis is placed on developing confidence in the water, learning water safety, acquiring skills in floating, and learning elementary strokes. Upon completion, students should be able to demonstrate safety skills and be able to tread water, back float, and use the crawl stroke for 20 yards.

PED 166 Sailing-Beginning 0 2 1
Prerequisites: PED 152 or equivalent proficiency
Corequisites: None

This course provides instruction in the basic fundamentals of small boat sailing. Topics include sailing terminology, knot tying, rigging, and various skills necessary to maneuver the boat. Upon completion, students should be able to demonstrate safe handling of a small boat.

PED 167 Sailing-Intermediate 0 2 1
Prerequisites: PED 166
Corequisites: None

This course covers more advanced sailing techniques. Emphasis is placed on competent small boat handling and small craft safety. Upon completion, students should be able to competently handle a small craft and pass the American Red Cross Small Boat Safety certification.

PHI 215 Philosophical Issues 3 0 3
Prerequisite: ENG 111

This course introduces fundamental issues in philosophy considering the views of classical and contemporary philosophers. Emphasis is placed on knowledge and belief, appearance and reality, determinism and free will, faith and reason, and justice and inequality. Upon completion, students should be able to identify, analyze, and critique the philosophical components of an issue.

PHI 240 Introduction to Ethics 3 0 3
Prerequisite: ENG 111.

This course introduces theories about the nature and foundations of moral judgments and applications to contemporary moral issues. Emphasis is placed on utilitarianism, rule-based ethics, existentialism, relativism versus objectivism, and egoism. Upon completion, students should be able to apply various ethical theories to individual moral issues such as euthanasia, abortion, crime and punishment, and justice.

PHM 110 Intro to Pharmacy Class 3 Lab 0 Credit 0 Clinical 3
Prerequisites: Enrollment in the Pharmacy Technology program
Corequisites: PHM 111 and PHM 115

This course introduces pharmacy practice and the technician's role in a variety of pharmacy settings. Topics include medical terminology and abbreviations, drug delivery systems, law and ethics, prescription and medication orders, and the health care system. Upon completion, students should be able to explain the role of pharmacy technicians, read and interpret drug orders, describe quality assurance, and utilize pharmacy references.

PHM 111 Pharmacy Practice I Class 3 Lab 3 Credit 0 Clinical 4
Prerequisites: Enrollment in the Pharmacy Technology program
Corequisites: PHM 110 and PHM 115

This course provides instruction in the technical procedures for preparing and dispensing drugs in the hospital and retail settings under supervision of a registered pharmacist. Topics include drug packaging and labeling, out-patient dispensing, hospital dispensing procedures, controlled substance procedures, inventory control, and non-sterile compounding. Upon completion, students should be able to perform basic supervised dispensing techniques in a variety of pharmacy settings.

PHM 115 Pharmacy Calculations Class 3 Lab 0 Credit 0 Clinical 3
Prerequisites: Enrollment in the Pharmacy Technology program
Corequisites: PHM 110 and PHM 111

This course provides an introduction to the metric, avoirdupois, and apothecary systems of measurement and the calculations used in pharmacy practice. Topics include ratio and proportion, dosage determinations, percentage preparations, reducing and enlarging formulas, dilution and concentration, aliquots, specific gravity and density, and flow rates. Upon completion, students should be able to correctly perform calculations required to properly prepare a medication order.

PHM 115A Pharmacy Calc Lab Class 0 Lab 2 Credit 0 Clinical 1
Prerequisites: Enrollment in the Pharmacy Technology program
Corequisites: None

This course provides an opportunity to practice and perform calculations encountered in pharmacy practice. Emphasis is placedon ratio and proportion, dosage calculations, percentage, reduction/enlargement formulas, aliquots, flow rates, and specific gravity/density. Upon completion, students should be able to perform the calculations required to properly prepare a medication order.

PHM 118 Sterile Products Class 3 Lab 3 Credit 0 Clinical 4
Prerequisites: PHM 110 and PHM 111
Corequisites: None

This course provides an introduction to intravenous admixture preparation and other sterile products, including total parenteral nutrition and chemotherapy. Topics include aseptic techniques; facilities, equipment, and supplies utilized in admixture preparation; incompatibility and stability; laminar flow hoods; immunizations and irrigation solutions; and quality assurance. Upon completion, students should be able to describe and demonstrate the steps involved in preparation of intermittent and continuous infusions, total parenteral nutrition, and chemotherapy.

PHM 120 Pharmacology I Class 3 Lab 0 Credit 0 Clinical 3
Prerequisites: Enrollment in the Pharmacy Technology program
Corequisites: None

This course introduces the study of the properties, effects, and therapeutic value of the primary agents in the major drug categories. Topics include nutritional products, blood modifiers, hormones, diuretics, cardiovascular agents, respiratory drugs, and gastrointestinal agents. Upon completion, students should be able to place major drugs into correct therapeutic categories and identify indications, side effects, and trade and generic names.

PHM 125 Pharmacology II Class 3 Lab 0 Credit 0 Clinical 3
Prerequisites: PHM 120
Corequisites: None

This course provides a continuation of the study of the properties, effects, and therapeutic value of the primary agents in the major drug categories. Topics include autonomic and central nervous system agents, anti-inflammatory agents, and anti-infective drugs. Upon completion, students should be able to place major drugs into correct therapeutic categories and identify indications, side effects, and trade and generic names.

PHM 132 Pharmacy Clinical Class 0 Lab 0 Credit 6 Clinical 2
Prerequisites: Enrollment in the Pharmacy Technology program
Corequisites: Reference program plan of study

This course provides an opportunity to work in pharmacy settings under a pharmacist's supervision. Emphasis is placed on effective communication with personnel, developing proper employee attitude, and dispensing of medications. Upon completion, students should be able to demonstrate an understanding of pharmacy operations, utilize references, dispense medications, prepare patient charges, and efficiently operate computers.

	Class	Lab	Credit	Clinical
PHM 138 Pharmacy Clinical	0	0	24	8

Prerequisites: Enrollment in the Pharmacy Technology program
Corequisites: Reference program plan of study

This course provides an opportunity to work in pharmacy settings under a pharmacist's supervision. Emphasis is placed on effective communication with personnel, developing proper employee attitude, and dispensing of medications. Upon completion, students should be able to demonstrate an understanding of pharmacy operations, utilize references, dispense medications, prepare patient charges, and efficiently operate computers.

PHM 140 Trends in Pharmacy	2	0	0	2

Prerequisites:
Corequisites:Pharmacy Clinical as per program plan of study

This course covers the major issues, trends, and concepts in contemporary pharmacy practice. Topics include professional ethics, continuing education, job placement, and the latest developments in pharmacy technician practice. Upon completion, students should be able to demonstrate a basic knowledge of the topics discussed.

PHM 155 Community Pharmacy	2	2	0	3

Prerequisites: Enrollment in the Pharmacy Technology program
Corequisites: None

This course covers the operational procedures relating to retail pharmacy. Emphasis is placed on a general knowledge of over-the counter products, prescription processing, business/ inventory management, and specialty patient services. Upon completion, students should be able to provide technical assistance and support to the retail pharmacist.

PHY 110 Conceptual Physics	3	0	3

Prerequisites:
Corequisites: None

This course provides a conceptually-based exposure to the fundamental principles and processes of the physical world. Topics include basic concepts of motion, forces, energy, heat, electricity, magnetism, and the structure of matter and the universe. Upon completion, students should be able to describe examples and applications of the principles studied.

PHY 110A Conceptual Physics Lab	0	2	1

Prerequisites:
Corequisites: PHY 110

This course is a laboratory for PHY 110. Emphasis is placed on laboratory experiences that enhance materials presented in PHY 110. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in PHY 110.

	Class	Lab	Credit
PHY 131 Physics-Mechanics	3	2	4

Prerequisites: MAT 121 or MAT 161
Corequisites: None

This algebra/trigonometry-based course introduces fundamental physical concepts as applied to engineering technology fields. Topics include systems of units, problem-solving methods, graphical analysis, vectors, motion, forces, Newton's laws of motion, work, energy, power, momentum, and properties of matter. Upon completion, students should be able to apply the principles studied to applications in engineering technology fields.

PHY 132 Physics-Elec & Magnetism	3	2	4

Prerequisites: PHY 131
Corequisites: None

This algebra/trigonometry-based course is a study of fundamental physical concepts as applied to engineering technology fields. Topics include systems of units, problem-solving methods, graphical analysis, waves, electricity, magnetism, circuits, transformers, motors, and generators. Upon completion, students should be able to apply the principles studied to applications in engineering technology fields.

PHY 151 College Physics I	3	2	4

Prerequisites: MAT 162, MAT 172, or MAT 175
Corequisites: None

This course uses algebra- and trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include units and measurement, vectors, linear kinematics and dynamics, energy, power, momentum, fluid mechanics, and heat. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered.

PHY 152 College Physics II	3	2	4

Prerequisites: PHY 151
Corequisites: None

This course uses algebra- and trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include electrostatic forces, electric fields, electric potentials, direct-current circuits, magnetostatic forces, magnetic fields, electromagnetic induction, alternating-current circuits, and light. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered.

PHY 251 General Physics I	4	3	5

Prerequisites: MAT 271
Corequisites: MAT 272

This course uses calculus-based mathematical models to introduce the fundamental concepts that describe the physical

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world. Topics include units and measurement, vector operations, linear kinematics and dynamics, energy, power, momentum, rotational mechanics, periodic motion, fluid mechanics, and heat. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered.

PHY 252 General Physics II 3 3 4
Prerequisites: MAT 272 and PHY 251
Corequisites: None

This course uses calculus-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include electrostatic forces, electric fields, electric potentials, direct-current circuits, magnetostatic forces, magnetic fields, electromagnetic induction, alternating-current circuits, and light. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered.

PLU 111 Intro to Basic Plumbing 1 3 2
Prerequisite: None
Corequisite: None

This course introduces basic plumbing tools, materials, and fixtures. Topics include standard tools, materials, and fixtures used in basic plumbing systems and other related topics. Upon completion, students should be able to demonstrate an understanding of a basic plumbing system.

POL 120 American Government 3 0 3
Prerequisite: Proficiency in reading or a grade of "C" or better in ENG 095.

This course is a study of the origins, development, structure, and functions of American national government. Topics include the constitutional framework, federalism, the three branches of government including the bureaucracy, civil rights and liberties, political participation and behavior, and policy formation. Upon completion, students should be able to demonstrate an understanding of the basic concepts and participatory processes of the American political system.

POL 130 State & Local Government 3 0 3
Prerequisite: Proficiency in reading or a grade of "C" or better in ENG 095.

This course includes state and local political institutions and practices in the context of American federalism. Emphasis is placed on procedural and policy differences as well as political issues in state, regional, and local governments of North Carolina. Upon completion, students should be able to identify and discuss various problems associated with intergovernmental politics and their effect on the community and the individual.

Class Lab Credit Clinical

POL 210 Comparative Government 3 0 3
Prerequisite: Proficiency in reading or a grade of "C" or better in ENG 095.

This course provides a cross-national perspective on the government and politics of contemporary nations such as Great Britain, France, Germany, and Russia. Topics include each country's historical uniqueness, key institutions, attitudes and ideologies, patterns of interaction, and current political problems. Upon completion, students should be able to identify and compare various nations' governmental structures, processes, ideologies, and capacity to resolve major problems.

PSY 118 Interpersonal Psychology 3 0 3
Prerequisite: Proficiency in reading or a grade of "C" or better in ENG 095.

This course introduces the basic principles of psychology as they relate to personal and professional development. Emphasis is placed on personality traits, communication/leadership styles, effective problem solving, and cultural diversity as they apply to personal and work environments. Upon completion, students should be able to demonstrate an understanding of these principles of psychology as they apply to personal and professional development.

PSY 150 General Psychology 3 0 3
Prerequisite: Proficiency in reading or a grade of "C" or better in ENG 095.

This course provides an overview of the scientific study of human behavior. Topics include history, methodology, biopsychology, sensation, perception, learning, motivation, cognition, abnormal behavior, personality theory, social psychology, and other relevant topics. Upon completion, students should be able to demonstrate a basic knowledge of the science of psychology.

PSY 241 Developmental Psychology 3 0 3
Prerequisite: PSY 150.

This course is a study of human growth and development. Emphasis is placed on major theories and perspectives as they relate to the physical, cognitive, and psychosocial aspects of development from conception to death. Upon completion, students should be able to demonstrate knowledge of development across the life span.

PSY 244 Child Development I 3 0 3
Prerequisite: PSY 150.

This course provides an introduction to the study of child development and examines the growth and development of children from conception through early childhood. Topics include historical and theoretical perspectives, terminology, research and observation techniques as well as physical, cognitive, and psychosocial growth and change. Upon comple-

Class Lab Credit Clinical

tion, students should be able to demonstrate an understanding of the early stages of child development.

PSY 245 Child Development II 3 0 3
Prerequisite: PSY 244.

This course examines the growth and development of children during early and middle childhood. Emphasis is placed on factors influencing physical, cognitive, and psychosocial growth and change. Upon completion, students should be able to demonstrate an understanding of early and middle child development.

PSY 255 Intro to Exceptionality 3 0 3
Prerequisite: PSY 150.

This course introduces the psychology of the exceptional person. Topics include theoretical perspectives, terminology, and interventions pertaining to various handicapping conditions as well as the resulting psychosocial adjustmets. Upon completion, students should be able to demonstrate a basic understanding of the potentials and limitations of the exceptional person.

PSY 265 Behavioral Modification 3 0 3
Prerequisite: PSY 150.

This course is an applied study of trhe factors influencing human behavior and strategies for behavioral change. Emphasis is placed on cognitive-behavioral theory, behavioral assessment, practical applications of condiionaing techniques, and maintenance of adaptive behavior patterns. Upon completion, students should be able to implement basic learning principles to effect behavioral changes in self and others.

PSY 281 Abnormal Psychology 3 0 3
Prerequisite: PSY 150.

This course provides an examination of the various psychological disorders, as well as theoretical, clinical, and experimental perspectives of the study of psychopathology. Emphasis is placed on terminology, classification, etiology, assessment, and treatment of the major disorders. Upon completion, students should be able to distinguish between normal and abnormal behavior patterns as well as demonstrate knowledge of etiology, symptoms, and therapeutic techniques.

RAD 110 Rad Intro & Patient Care 2 3 0 3
Prerequisites: Enrollment in Radiography program
Corequisites: RAD 111 and RAD 151

This course provides an overview of the radiography profession and student responsibilities. Emphasis is placed on basic principles of patient care, radiation protection, technical factors, and medical terminology. Upon completion, students should be able to demonstrate basic skills in these areas.

Class Lab Credit Clinical

RAD 111 RAD Procedures I 3 3 0 4
Prerequisites: Enrollment in the Radiography program
Corequisites: BIO 168

This course provides the knowledge and skills necessary to perform standard radiographic procedures. Emphasis is placed on radiography of the chest, abdomen, extremities, spine, and pelvis. Upon completion, students should be able to demonstrate competence in these areas.

RAD 112 RAD Procedures II 3 3 0 4
Prerequisites: BIO 168
Corequisites:BIO 169

This course provides the knowledge and skills necessary to perform standard radiographic procedures. Emphasis is placed on radiography of the skull, bony thorax, and gastrointestinal, biliary, and urinary systems. Upon completion, students should be able to demonstrate competence in these areas.

RAD 121 Radiographic Imaging I 2 3 0 3
Prerequisites: RAD 110, RAD 111, and RAD 151
Corequisites: None

This course covers factors of image quality and methods of exposure control. Topics include density, contrast, recorded detail, distortion, technique charts, manual and automatic exposure control, and tube rating charts. Upon completion, students should be able to demonstrate an understanding of exposure control and the effects of exposure factors on image quality.

RAD 122 Radiograph Imaging II 1 3 0 2
Prerequisites: RAD 112, RAD 121, and RAD 161
Corequisites: RAD 131 and RAD 171

This course covers image receptor systems and processing principles. Topics include film, film storage, processing, intensifying screens, grids, and beam limitation. Upon completion, students should be able to demonstrate the principles of selection and usage of imaging accessories to produce quality images.

RAD 131 Radiographic Physics I 1 3 0 2
Prerequisites: RAD 112, RAD 121, and RAD 161
Corequisites: RAD 122 and RAD 171

This course introduces the fundamental principles of physics that underlie diagnostic X-ray production and radiography. Topics include electromagnetic waves, electricity and magnetism, electrical energy, and power and circuits as they relate to radiography. Upon completion, students should be able to demonstrate an understanding of basic principles of physics as they relate to the operation of radiographic equipment.

RAD 151 RAD Clinical Ed I Class 0 Lab 0 Credit 6 Clinical 2
Prerequisites: Enrollment in the Radiography program
Corequisites: RAD 110 and RAD 111

This course introduces patient management and basic radiographic procedures in the clinical setting. Emphasis is placed on mastering positioning of the chest and extremities, manipulating equipment, and applying principles of ALARA. Upon completion, students should be able to demonstrate successful completion of clinical objectives.

RAD 161 RAD Clinical Ed II 0 0 15 5
Prerequisites: RAD 110, RAD 111, and RAD 151
Corequisites: RAD 112 and RAD 121

This course provides additional experience in patient management and in more complex radiographic procedures. Emphasis is placed on mastering positioning of the spine, pelvis, head and neck, and thorax and adapting procedures to meet patient variations. Upon completion, students should be able to demonstrate successful completion of clinical objectives.

RAD 171 RAD Clinical Ed III 0 0 12 4
Prerequisites: RAD 112, RAD 121, and RAD 161
Corequisites: RAD 122 and RAD 131

This course provides experience in patient management specific to fluoroscopic and advanced radiographic procedures. Emphasis is placed on applying appropriate technical factors to all studies and mastering positioning of gastrointestinal and urological studies. Upon completion, students should be able to demonstrate successful completion of clinical objectives.

RAD 211 RAD Procedures III 2 3 0 3
Prerequisites: RAD 112
Corequisites: RAD 231, RAD 241, and RAD 251

This course provides the knowledge and skills necessary to perform standard and specialty radiographic procedures. Emphasis is placed on radiographic specialty procedures, pathology, and advanced imaging. Upon completion, students should be able to demonstrate competence in these areas.

RAD 231 Radiographic Physics II 1 3 0 2
Prerequisites: RAD 171
Corequisites: RAD 211, RAD 241, and RAD 251

This course continues the study of physics that underlie diagnostic X-ray production and radiographic and fluoroscopic equipment. Topics include X-ray production, electromagnetic interactions with matter, X-ray devices, equipment circuitry, targets, filtration, and dosimetry. Upon completion, students should be able to demonstrate an understanding of the application of physical concepts as related to image production.

RAD 241 Radiation Protection 2 0 0 2
Prerequisites: RAD 122, RAD 131, and RAD 171
Corequisites: RAD 211, RAD 231, and RAD 251

This course covers the principles of radiation protection and radiobiology. Topics include the effects of ionizing radiation on body tissues, protective measures for limiting exposure to the patient and personnel, and radiation monitoring devices. Upon completion, students should be able to demonstrate an understanding of the effects and uses of radiation in diagnostic radiology.

RAD 245 Radiographic Analysis 2 3 0 3
Prerequisites: RAD 251
Corequisites: RAD 261

This course provides an overview of imaging concepts and introduces methods of quality assurance. Topics include a systematic approach for image evaluation and analysis of imaging service and quality assurance. Upon completion, students should be able to establish and administer a quality assurance program and conduct a critical review of images.

RAD 251 RAD Clinical Ed IV 0 0 21 7
Prerequisites: RAD 122, RAD 131, and RAD 171
Corequisites: RAD 211, RAD 231, and RAD 241

This course provides the opportunity to continue mastering all basic radiographic procedures and to attain experience in advanced areas. Emphasis is placed on equipment operation, pathological recognition, pediatric and geriatric variations, and a further awareness of radiation protection requirements. Upon completion, students should be able to demonstrate successful completion of clinical objectives.

RAD 261 RAD Clinical Ed V 0 0 21 7
Prerequisites: RAD 251
Corequisites: RAD 245

This course is designed to enhance expertise in all radiographic procedures, patient management, radiation protection, and image production and evaluation. Emphasis is placed on developing an autonomous approach to the diversity of clinical situations and successfully adapting to those procedures. Upon completion, students should be able to demonstrate successful completion of clinical objectives.

REA 101 Intro Real Est App R-1 2 0 2
Prerequisites:
Corequisites: None

This course introduces the entire valuation process, with specific coverage of residential neighborhood and property analysis. Topics include basic real property law, concepts of value and operation of real estate markets, mathematical and statistical concepts, finance, and residential construction/design. Upon completion, students should be able to demonstrate

Class Lab Credit Clinical

adequate preparation for REA 102. *This course is required for the Real Estate Appraisal certificate.*

REA 102 Valuation Prin/Prac R-2 2 0 2
Prerequisites: REA 101
Corequisites: None

This course introduces procedures used to develop an estimate of value and how the various principles of value relate to the application of such procedures. Topics include the sales comparison approach, site valuation, sales comparison, the cost approach, the income approach, and reconciliation. Upon completion, students should be able to complete the Uniform Residential Appraisal Report (URAR). *This course is required for the Real Estate Appraisal certificate.*

REA 103 Appl Res Prop Val R-3 2 0 2
Prerequisites: REA 102
Corequisites: None

This course covers the laws and standards practiced by appraisers in the appraisal of residential 1-4 unit properties and small farms. Topics include Financial Institutions Reform and Recovery Enforcement Act (FIRREA), Uniform Standards of Professional Appraisal Practice (USPAP), and North Carolina statutes and rules. Upon completion, students should be able to demonstrate eligibility to sit for the NC Appraisal Board license trainee examination and to enroll in REA 201. *This course is required for the Real Estate Appraisal certificate.*

REA 201 Intro Income Prop G-1 2 0 2
Prerequisites: REA 103
Corequisites: None

This course introduces concepts and techniques used to appraise real estate income properties. Topics include real estate market analysis, property analysis and site valuation, how to use financial calculators, present value, NOI, and before-tax cash flow. Upon completion, students should be able to estimate income property values using direct capitalization and to sit for the NC Certified Residential Appraiser examination. *This course is required for the Real Estate Appraisal certificate.*

REA 202 Adv Inc Capital Proc G-2 2 0 2
Prerequisites: REA 201
Corequisites:A financial calculator is required for this course

This course expands direct capitalization techniques and introduces yield capitalization. Topics include yield rates, discounted cash flow, financial leverage, and traditional yield capitalization formulas. Upon completion, students should be able to estimate the value of income producing property using yield capitalization techniques. *This course is required for the Real Estate Appraisal certificate.*

Class Lab Credit Clinical

REA 203 Applied Inc Prop Val G-3 2 0 2
Prerequisites: REA 202
Corequisites: None

This course covers the laws, rules, and standards pertaining to the principles and practices applicable to the appraisal of income properties. Topics include FIRREA, USPAP, Uniform Commercial and Industrial Appraisal Report (UCIAR) form, North Carolina statutes and rules, and case studies. Upon completion, students should be able to prepare a narrative report that conforms to the USPAP and sit for the NC Certified General Appraisal examination. *This course is required for the Real Estate Appraisal certificate.*

REL 110 World Religions 3 0 3
Prerequisite: Proficiency in reading or a grade of "C" or better in ENG 095.

This course introduces the world's major religious traditions. Topics include Primal religions, Hinduism, Buddhism, Islam, Judaism, and Christianity. Upon completion, students should be able to identify the origins, history, beliefs, and practices of the religions studied.

REL 221 Religion in America 3 0 3
Prerequisite: Proficiency in reading or a grade of "C" or better in ENG 095.

This course is an examination of religious beliefs and practice in the United States. Emphasis is placed on mainstream religious traditions and non-traditional religious movements from the Colonial period to the present. Upon completion, students should be able to recognize and appreciate the diversity of religious traditions in America.

RLS 112 Real Estate Fundamentals 4 0 4
Prerequisites:
Corequisites: None

This course provides basic instruction in real estate principles and practices. Topics include law, finance, brokerage, closing, valuation, management, taxation, mathematics, construction, land use, property insurance, and NC License Law and Commission Rules. Upon completion, students should be able to demonstrate basic knowledge and skills necessary for real estate sales.

RLS 113 Real Estate Mathematics 2 0 2
Prerequisites:
Corequisites: None

This course provides basic instruction in business mathematics applicable to real estate situations. Topics include area computations, percentage of profit/loss, bookkeeping and accounting methods, appreciation and depreciation, financial calculations and interest yields, property valuation, insurance, taxes, and commissions. Upon completion, students should be able to demonstrate proficiency in applied real estate mathematics.

Class Lab Credit Clinical

RLS 114 Real Estate Brokerage 2 0 2
Prerequisites: RLS 112 or current Real Estate license
Corequisites: None

This course provides basic instruction in the various real estate brokerage operations, including trust account records and procedures. Topics include establishing a brokerage firm, management concepts and practices, personnel and training, property management, advertising and publicity, records and bookkeeping systems, and financial operations. Upon completion, students should be able to establish, operate, and manage a realty brokerage practice in a manner which protects and serves the public interest.

RLS 115 Real Estate Finance 2 0 2
Prerequisites: RLS 112 or current Real Estate license
Corequisites: None

This course provides advanced instruction in financing real estate transactions and real property valuation. Topics include sources of mortgage funds, financing instruments, mortgage types, loan underwriting, essential mathematics, and property valuation. Upon completion, students should be able to demonstrate knowledge of real estate finance necessary to act as real estate brokers.

RLS 116 Real Estate Law 2 0 2
Prerequisites: RLS 112 or current Real Estate license
Corequisites: None

This course provides advanced instruction in legal aspects of real estate brokerage. Topics include property ownership and interests, brokerage relationships, agency law, contracts, settlement statements, and NC License Law and Commission Rules. Upon completion, students should be able to demonstrate knowledge of laws relating to real estate brokerage necessary to act as real estate brokers.

SLP 111 Intro to Sp-Lan Patho 3 0 3
Prerequisites: None
Corequisites: None

This course provides an overview of the theory, practice, and philosophy of speech-language pathology assisting. Topics include legal and ethical issues, scope of practice, multiculturalism, and diversity. Upon completion, students should be able to describe characteristics of the profession and identify components of safe and ethical practice.

SLP 112 SLP Anat & Physiology 3 0 3
Prerequisites: BIO 163 or BIO 166 or BIO 169
Corequisites: None

This course introduces the basic pathophysiology of the orofacial and thoracic structures of the human body. Emphasis is placed on the most commonly treated speech, language, and hearing disorders. Upon completion, students should be able to identify and describe basic pathophysiology related to the production of speech and hearing.

SLP 120 SLP Admin Office Proc 2 0 2
Prerequisites: None
Corequisites: None

This course covers organizational and functional skills appropriate to the speech-language pathology workplace. Emphasis is placed on scheduling, office etiquette, operation of office equipment, time management, and quality issues. Upon completion, students should be able to demonstrate correct operation of office equipment and work cooperatively and effectively within the speech-language pathology professional environment.

SLP 130 Phonetics/Speech Patterns 2 2 3
Prerequisites: None
Corequisites: None

This course introduces the International Phonetic Alphabet and the categories of speech sounds, including voice, place, and manner of production. Emphasis is placed on the accurate transcription of normal and abnormal speech samples using the IPA and on the production of effective natural speech. Upon completion, students should be able to transcribe and categorize speech sounds and produce natural speech using appropriate breathing, articulation, and pronunciation.

SLP 140 Normal Communication 3 0 3
Prerequisites: None
Corequisites: None

This course introduces normal verbal and non-verbal communications across the life span, including appropriate social interaction with diverse populations. Topics include normal speech, language, and hearing in a multicultural society and an introduction to screening for normality and abnormality. Upon completion, students should be able to identify normal speech, language, and hearing patterns.

SLP 211 Disorders & Treatment I 3 2 4
Prerequisite: SLP 111 or SLP 112 or SLP 130 or SLP 140
Corequisite: None

This course covers screening for speech, language, and hearing disorders; use of observational checklists; and administration of therapeutic protocols. Emphasis is placed on conditions commonly treated in speech-language pathology. Upon completion, students should be able to accurately administer screening tests and therapeutic protocols and identify characteristics of developmental speech, language, and hearing disorders.

	Class	Lab	Credit	Clinical
SLP 212 Disorders & Treat II	3	2	3	5

Prerequisite: SLP 211
Corequisite: None

This course is a continuation of SLP 211 and includes an introduction to clinical settings. Emphasis is placed on acquired conditions commonly treated in speech-language pathology. Upon completion, students should be able to accurately administer screening tests and therapeutic protocols and identify characteristics of acquired speech, language, and hearing disorders.

SLP 220 Assistive Technology	1	2	2	

Prerequisites: SLP 111 or SLP 130 or SLP 140
Corequisites: SLP 211

This course introduces the preparation, use, and maintenance of selected communication equipment in the treatment of respective disorders. Emphasis is placed on the collaborative use of assistive equipment for speech, language, and hearing disorders. Upon completion, students should be able to instruct the patient and caregiver in the use and maintenance of assistive communication equipment.

SLP 230 SLP Fieldwork	0	12	4	

Prerequisite: SLP 211
Corequisite: SLP 212, SLP 231

This course provides supervised fieldwork experience in speech-language pathology assisting in a minimum of two diverse sites. Emphasis is placed on the use of written protocols in providing patient care. Upon completion, students should be able to integrate ethical concepts into safe and effective clinical practice.

SLP 231 SLP Fieldwork Seminar	3	0	3	

Prerequisites: SLP 211
Corequisites: SLP 212, SLP 230

This course provides an opportunity to discuss fieldwork experiences with peers and faculty. Emphasis is placed on management of clinical problems, conflict resolution, and job seeking and retention skills. Upon completion, students should be able to meet entry-level requirements for speech-language pathology assistants.

SOC 210 Introduction to Sociology	3	0	3	

Prerequisite: Proficiency in reading or a grade of "C" or better in ENG 095.

This course introduces the scientific study of human society, culture, and social interactions. Topics include socialization, research methods, diversity and inequality, cooperation and conflict, social change, social institutions, and organizations. Upon completion, students should be able to demonstrate knowledge of sociological concepts as they apply to the interplay among individuals, groups, and societies.

	Class	Lab	Credit	Clinical
SOC 213 Sociology of the Family	3	0	3	

Prerequisite: Proficiency in reading or a grade of "C" or better in ENG 095.

This course covers the institution of the family and other intimate relationships. Emphasis is placed on mate selection, gender roles, sexuality, communication, power and conflict, parenthood, diverse lifestyles, divorce and remarriage, and economic issues. Upon completion, students should be able to analyze the family as a social institution and the social forces which influence its development and change.

SOC 220 Social Problems	3	0	3	

Prerequisite: Proficiency in reading or a grade of "C" or better in ENG 095.

This course provides an in-depth study of current social problems. Emphasis is placed on causes, consequences, and possible solutions to problems associated with families, schools, workplaces, communities, and the environment. Upon completion, students should be able to recognize, define, analyze, and propose solutions to these problems.

SOC 240 Social Psychology	3	0	3	

Prerequisite: Proficiency in reading or a grade of "C" or better in ENG 095.
Corequisites: None

This course examines the influence of culture and social groups on individual behavior and personality. Emphasis is placed on the process of socialization, communication, conformity, deviance, interpersonal attraction, intimacy, race and ethnicity, small group experiences, and social movements. Upon completion, students should be able to identify and analyze cultural and social forces that influence the individual in a society.

SPA 111 Elementary Spanish I	3	0	3	

Prerequisite: None.

This course introduces the fundamental elements of the Spanish language within a cultural context. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Spanish and demonstrate cultural awareness.

SPA 112 Elementary Spanish II	3	0	3	

Prerequisite: SPA 111.

This course is a continuation of SPA 111 focusing on the fundamental elements of the Spanish language within a cultural context. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written Spanish and demonstrate further cultural awareness.

SPA 211 Intermediate Spanish I Class 3 Lab 0 Credit 3 Clinical
Prerequisite: SPA 112.

This course provides a review and expansion of the essential skills of the Spanish language. Emphasis is placed on the study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future.

SPA 212 Intermediate Spanish II 3 0 3
Prerequisite: SPA 211.

This course provides a continuation of SPA 211. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication.

TRP 100 Truck Driver Training 6 18 12
Prerequisites:
Corequisites: None

This course provides training in inspecting and driving tractor trailers and assuming driver responsibilities on the road and at pickup and delivery points. Emphasis is placed on defensive driving, federal motor carrier safety regulations, trip planning, cargo handling, vehicle systems, hours of service, and accident prevention. Upon completion, students should be able to demonstrate the skills required for the commercial driver's license and employment. *This is a certificate-level course.*

WAT 110 Basic Wastewater Trmt 2 2 3
Prerequisites: None
Corequisites: None

This course provides practical training in the operation and maintenance of wastewater treatment plants. Emphasis is placed on wastewater treatment systems, maintenance procedures, basic process control, and laboratory analyses used by operators of wastewater treatment facilities. Upon completion, students should be able to make operational control changes and minor mechanical repairs needed to ensure compliance with NPDES discharge permits. Technologies covered will range from subsurface waste disposal (septic systems) and spray irrigation to tertiary treatment processes.

WLD 110 Cutting Processes 1 3 2
Prerequisites:
Corequisites: None

This course introduces oxy-fuel and plasma-arc cutting systems. Topics include safety, proper equipment setup, and operation of oxy-fuel and plasma-arc cutting equipment with emphasis on straight line, curve and bevel cutting. Upon completion, students should be able to oxy-fuel and plasma-arc cut metals of varying thickness.

WLD 112 Basic Welding Processes 1 3 2
Prerequisites:
Corequisites: None

This course introduces basic welding and cutting. Emphasis is placed on beads applied with gases, mild steel fillers, and electrodes and the capillary action of solder. Upon completion, students should be able to set up welding and oxy-fuel equipment and perform welding, brazing, and soldering processes.

WLD 115 SMAW (Stick) Plate 2 9 5
Prerequisites:
Corequisites: None

This course introduces the shielded metal arc (stick) welding process. Emphasis is placed on padding, fillet, and groove welds in various positions with SMAW electrodes. Upon completion, students should be able to perform SMAW fillet and groove welds on carbon plate with prescribed electrodes.

WLD 116 SMAW (Stick) Plate/Pipe 1 9 4
Prerequisites: WLD 115
Corequisites:None

This course is designed to enhance skills with the shielded metal arc (stick) welding process. Emphasis is placed on advancing manipulative skills with SMAW electrodes on varying joint geometry. Upon completion, students should be able to perform groove welds on carbon steel with prescribed electrodes in the flat, horizontal, vertical, and overhead positions.

WLD 121 GMAW (MIG) FCAW/Plate 2 6 4
Prerequisites:
Corequisites: None

This course introduces metal arc welding and flux core arc welding processes. Topics include equipment setup and fillet and groove welds with emphasis on application of GMAW and FCAW electrodes on carbon steel plate. Upon completion, students should be able to perform fillet welds on carbon steel with prescribed electrodes in the flat, horizontal, and overhead positions.

WLD 131 GTAW (TIG) Plate 2 6 4
Prerequisites:
Corequisites: None

This course introduces the gas tungsten arc (TIG) welding process. Topics include correct selection of tungsten, polarity, gas, and proper filler rod with emphasis placed on safety, equipment setup, and welding techniques. Upon completion, students should be able to perform GTAW fillet and groove welds with various electrodes and filler materials.

	Class	Lab	Credit	Clinical

WLD 132 GTAW (TIG) Plate/Pipe 1 6 3
Prerequisites: WLD 131
Corequisites: None

This course is designed to enhance skills with the gas tungsten arc (TIG) welding process. Topics include setup, joint preparation, and electrode selection with emphasis on manipulative skills in all welding positions on plate and pipe. Upon completion, students should be able to perform GTAW welds with prescribed electrodes and filler materials on various joint geometry.

WLD 141 Symbols & Specifications 2 2 3
Prerequisites:
Corequisites: None

This course introduces the basic symbols and specifications used in welding. Emphasis is placed on interpretation of lines, notes, welding symbols, and specifications. Upon completion, students should be able to read and interpret symbols and specifications commonly used in welding.

WLD 143 Welding Metallurgy 1 2 2
Prerequisites:
Corequisites: None

This course introduces the concepts of welding metallurgy. Emphasis is placed on basic metallurgy, effects of welding on various metals, and metal classification and identification. Upon completion, students should be able to understand basic metallurgy, materials designation, and classification systems used in welding.

WLD 215 SMAW (Stick) Pipe 1 9 4
Prerequisites: WLD 115 or WLD 116
Corequisites: None

This course covers the knowledge and skills that apply to welding pipe. Topics include pipe positions, joint geometry, and preparation with emphasis placed on bead application, profile, and discontinuities. Upon completion, students should be able to perform SMAW welds to applicable codes on carbon steel pipe with prescribed electrodes in various positions.

WLD 231 GTAW (TIG) Pipe 1 6 3
Prerequisites: WLD 132
Corequisites: None

This course covers gas tungsten arc welding on pipe. Topics include joint preparation and fit up with emphasis placed on safety, GTAW welding technique, bead application, and joint geometry. Upon completion, students should be able to perform GTAW welds to applicable codes on pipe with prescribed electrodes and filler materials in various pipe positions.

STUDENT HANDBOOK

Where to go for What

Absences	Instructor
Academic Advising	Assigned Faculty Advisor
Academic Honors	Catalog/Admissions and Records
Academic Probation	Catalog/Counselors
Admissions	Student Development
Address Change	Admissions and Records
Advanced Placement	Counseling
Attendance	Instructor
Books/Supplies	Campus Bookstore
Bulletin Boards	Office of Dean of Student Development
Career Counseling	Career and Testing
Change Program/Major	Counseling
Clubs and Organizations	Student Activities
Course Selection	Advisor/Counselor
Drop a Course	Instructor/Admissions and Records
Emergencies	Student Development
Fees	Business Office
Financial Aid	Financial Aid Office
First Aid	Student Development
General Interest Courses	Continuing Education
Grading System	Catalog/Admissions and Records
Insurance	Business Office
Job Placement	Career and Testing
Lost & Found	Switchboard Operator
Parking Permits/Regulations	Business Office
Personal Counseling	Counseling
Registration	Student Development
Student I.D. Card	Student Activities
Testing	Career and Testing
Transcripts	Admissions and Records
Transfer Counseling	Advisors/Counseling
Tutoring	Center for Academic Enhancement
Veterans	Financial Aid Office
Withdrawal from a Course	Admissions and Records

Services To Students

Orientation

The Student Development Department offers orientation programs prior to the start of each academic session to acquaint new students to the College, its facilities, resources, services, activities, organizations and policies.

All new students are encouraged to take advantage of these programs to maximize their opportunities at CFCC.

Counseling

Academic, personal and career counseling services are offered on an ongoing basis. Professional counselors are available to assist students with attendance problems, academic probation counseling, personal concerns and to provide tips on study skills, time management and a variety of topics. Referrals to other agencies are made on an as-need basis.

Services for Special Populations

The purpose of Cape Fear Community College's program for students with special needs is to provide auxiliary support services for students with various disabilities so that they may derive equal benefits from attending CFCC. This program provides numerous services that assist students in reaching their academic goals. Assistance may include services such as registration assistance, personal counseling, auxiliary aides, student advocacy, interpreters for the hearing impaired, reasonable accommodations and tutorial services. It is the student's responsibility to advise the Disability Services Coordinator that he/she has special needs and to provide documentation relating to those needs.

Career and Testing Services

Career counseling is available through the Office of Career and Testing Services. Students are assisted with career decision-making, employment trends, and educational requirements.

Job placement assistance is also available to students and graduates. Employment Security Commission (ESC) representatives are on campus weekly to increase job placement opportunities.

ASSET Testing

The ASSET test is used to determine whether a student needs academic skills enhancement to be successful in designated classes. This assessment is a tool the College provides to help students secure opportunities to achieve their educational goals.

GED Testing

The General Education Development (GED) diploma is administered at CFCC. Successful completion of the pre-GED is required before applying to take the GED test.

Retention and Graduation Rate Information

Anyone wishing to obtain information about first-time students rate of persistence and/or graduation rates should contact the Office of Career and Testing Services.

Developmental Studies

To help insure student success, the College offers developmental courses to students who need help in the basic skills of reading, English, and/or mathematics. These courses are required for those students who have been identified by the Admissions and Records Office as needing enhancement in reading, English, or mathematics.

Developmental courses earn institutional credit; however, such credit does not apply toward the required hours for receiving a degree or in the calculation of grade point averages. The College grading scale applies to grades assigned in developmental areas.

Center for Academic Enhancement

The Center for Academic Enhancement is a comprehensive learning assistance center. The staff strives to provide educational support for student success. Students can be empowered to succeed academically in classes for which they seek help from the Center through instructional facilitators, computer facilitators, student tutors, and computer-assisted instruction. The staff also attempts to meet the needs of individual learning styles and to help students develop self-reliance and build self-esteem. Moreover, the Center provides assistance to Cape Fear students with computer applications used by business and industry.

The staff in the Center realizes that everyone sometimes needs a helping hand. Helping hands are provided in a variety of ways. Instructional facilitators use a medley of instructional methods and provide help with many curriculum courses. Computer facilitators provide assistance with computer-related courses and with software applications. Student tutors help with practice problems and have already successfully completed the courses they tutor. Computer assisted instruction provides alternative help and extra skills practice.

The Center is located on the sixth floor of the McLeod building and is open Monday - Thursday 7:30 am - 10:00 pm, Friday 7:30 am - 5:00 pm, and Saturday 9:00 am - 1:00 pm.

The Center provides assistance with CFCC curriculum courses, study skills, ASSET preparation, and Adult Basic Skills/GED/Adult High School.

If you would like more information about the Center for Academic Enhancement, please call 251-5637.

Health and First Aid Services

The following health services are provided through the Office of Student Development:

(1) Minor first aid is available on campus,

(2) Illness and injury that cannot be taken care of by individuals on campus will be referred to community health facilities,

(3) A drug abuse prevention program is sponsored by the College which includes distribution of available literature, providing audio visual materials, making available through the Learning Resource Center a limited number of current books on the subject, and a counseling service that refers students to local health professionals trained in the area of substance abuse.

If illness or injury requiring transportation should occur before 5:00 pm, the Student Development Department should be contacted. The Duty Administrator should be contacted after 5:00 pm.

Learning Resources Center (LRC)

The Learning Resources Center (LRC) is located on the sixth floor of the M.J. McLeod building. The LRC is open from 7:30 am to 10:00 pm Monday - Thursday, 7:30 am to 5:00 pm Friday and 9:00 am to 1:00 pm on Saturday. Summer hours are posted when different hours are observed. The LRC offers library and media services and an atmosphere which supports research, study and pleasure reading. The librarians and staff are always ready to help students.

The library has approximately 30,000 books and 740 periodicals. Easy to use, up-to-date electronic databases on CD-ROM include: Books-in-Print, Info Trac, Newsbank, Discovering Careers and Jobs, Social Issues Resource Series (SIRS) Researcher and SIRS Renaissance. The library keeps a large collection of magazines, newspapers, and a variety of census records from the Cape Fear region on microfilm. Entertainment and instructional videos are available to be checked out. Also helpful are the media services that include computerized graphic production, signage, media production and AV equipment that may be used for class presentations. Teleconferences may be requested by faculty, staff and local industry. Copies of all telecourse broadcasts are available for student checkout.

The LRC also provides the publication, "A Guide to the LRC." Individual and class library orientation tours, Internet classes, interlibrary loan, photocopy service and individual reference service are available at all times that the LRC is open.

The LRC provides INTERNET access through the easy-to-use computer program Netscape.

Continuing Education Services

The Continuing Education Department offers a variety of training opportunities and other classes to meet the needs of the community. These non-academic credit classes allow students to prepare for employment, upgrade skills or learn new skills. Training is also provided for employees of area industries and public agencies.

HRD/JTPA

The Human Resources Development Program (HRD) and Job Training Partnership Act (JTPA) division of Continuing Education offer classes throughout the year to help adults who are unemployed, underemployed or looking for further education.

Registration Information

Registration is the term used for enrolling in classes. Advisors and counselors will provide information which will assist students in choosing required classes, completing the registration form, securing a space in class and paying tuition fees.

Semester System

The academic year is divided into two semesters and summer sessions. The Fall and Spring semester offers sixteen (16) weeks of instruction. The Summer instructional terms are provided either in an eleven (11) week session or two five and one-half (5 1/2) week sessions. Consult the Schedule of Classes for particular scheduling information.

Semester Hour Credit

Each course listed in the catalog and class schedule is followed by a notation on the number of semester hours it earns. Normally, the number of semester hours earned is based on the number of class, laboratory or shop hours spent under the supervision of the course instructor per week for the semester. Usually one semester hour credit is given for each lecture hour of class per week, for each two hours of laboratory work per week, or for each three hours of shop or manipulative laboratory per week. (A class hour is usually defined as 50 minutes of instruction.) Exceptions may be made in cases where specific classification is not feasible.

Course Load

Maximum course loads for which students may enroll are as follows:

Fall and/or Spring Semester(s) - Eighteen (18) credit hours except when program requirements determine otherwise.

Summer Term - Thirteen (13) credit hours except when program requirements determine otherwise.

Any exception must be approved by the Dean of Student Development.

Procedures for Registering for Classes

Step 1. Advisement & Scheduling - Faculty advise students concerning course schedule and sign registration cards.

Step 2. Schedule Input - Students' schedule will be input into the computers.

Step 3. Registration Receipt Form - Students must pick up their schedule/receipt form.

Step 4. Payment of Tuition Fees - Business Office - All students pay tuition and fees.

Note: Students receiving Financial Aid, Veterans' Benefits or Financial Sponsorship must complete Steps 1-4.

Pre-registration

Pre-registration provides an opportunity for currently enrolled students to select early the classes they need to take for the next academic session. Currently enrolled students are allowed and encouraged to pre-register at designated times.

Drop/Add/Late Registration

Drop/add/late registration will allow students to drop or add or register late during the times specified in each terms Schedule of Classes.

Auditing Courses

Students who wish to audit courses must register for the audit by following the regular registration procedures and indicating in writing on an audit form which course(s) they are auditing. Auditing students receive no credit and are not required to participate in class discussion or take tests. Fees for audit courses are the same as those taken for credit. Changes from audit to credit or credit to audit may only be done during registration and drop/add periods. Students should be aware that Financial Aid of Veteran benefits do not pay for audit courses.

Withdrawal

Students desiring to withdraw from school must contact the Admissions and Records Office to obtain the necessary forms and procedures for official withdrawal. Students who stop attending a class without officially withdrawing will receive a NC (No Credit), which is computed as a failing grade.

Students who withdraw from a course(s) within the first 30% of class hours will receive a grade of W which will not be computed in the GPA (Grade Point Average). Students who withdraw from a course(s) after this period must receive a grade of WP (Withdraw Passing) or WF (Withdraw Failing) as determined by the course instructor. A WP will not be computed in the GPA whereas a WF will be computed as a failing grade.

Students who withdraw from classes may be eligible for a tuition refund. See Refund Policy under the Expenses section of this handbook.

Students who withdraw after the twelfth week of classes must obtain permission in writing from the course instructor and the Dean of Student Development. Permission will be granted for extenuating circumstances only.

Academic Information

Student Advisement

Cape Fear Community College views student advisement as an important, on-going process. Each degree/certificate seeking student is assigned a faculty advisor who assists the student in selecting and scheduling appropriate classes to fulfill his/her educational requirements. Non-degree students are assigned counselors who assist in selecting and scheduling appropriate classes.

Students are required to meet with their assigned advisor each semester for assistance in scheduling classes and completing the registration form. Advisors' office hours are posted on their office doors.

Students must accept the responsibility of familiarizing themselves with specific course and program requirements.

While advising is an on-going process, specific times are designated prior to each registration period to high-light advising.

Grading and Grade Point Averages

Grading is done by the traditional method of A through D along with negative categories such as F (Failure), WF (Withdraw Failing) and NC (No Credit). Grades are assigned a numerical value when determining a students Grade Point Average (GPA).

Grading System

Grade	Significance	Quality Points Per Semester Hour
A	Superior	4
B	Good	3
C	Average	2
D	Poor	1
F	Failure	0
I	Incomplete	0
NC	No Credit	0
W	Official Withdrawal	0
AU	Audit	0
WP	Withdrew Passing	0
WF	Withdrew Failing	0
CR	Credit by Exam	0
CT	Credit by Transfer	0
NS	No Show	0

Grading Scale

The college grading scale is:

A	=	92 - 100
B	=	84 - 91
C	=	76 - 83
D	=	68 - 75
F	=	0 - 67

Translating Course Grades into GPA

By taking the number of semester hours assigned to a course and multiplying them by the value of the grade, you determine the grade points for each course attempted. Example: If you take five courses that are assigned a total of 18 semester hours, you may determine your GPA in the following manner:

Course	Grade	Semester Hours Attempted		Times Grade Value		Equals Quality Points
1	B	2	X	3	=	6
2	A	6	X	4	=	24
3	C	4	X	2	=	8
4	B	3	X	3	=	9
5	F	3	X	0	=	0
6	WP	0	X	0	=	0
TOTALS		**18**				**47**

Divide the total number of hours attempted into the total quality points and that will give you your GPA; in this case 2.61 is the GPA.

Attendance

Absences seriously disrupt students' progress in a class and diminish the quality of group interaction. Students are expected to punctually attend all lecture and laboratory sessions in the courses for which they are registered. Late arrivals and/or early departures may count toward total absences in classes.

Students must be in attendance at least eighty (80%) percent of the clock hours of a course to receive credit for the course. Those who do not meet minimum attendance requirements will be given the grade of NC (No Credit), which will be computed in the student's grade point average as a failing grade.

Attendance requirements for each class are printed in the course syllabus distributed by the instructor. Because of the nature of some courses, some instructors may have a more restrictive attendance requirement.

Special note to Marine Technology students: Students in the Marine Technology curriculum are at times involved in cruises on the ship that might take place during a holiday or semester break during which time students are normally off. When such occurs, students must participate in the cruise.

Final Grades
Final grades will be mailed directly to the student after the end of each academic session. Students will receive one grade report which lists all courses taken during the academic session in which they were registered. This report will also show grade point average, total number of credit hours earned as a CFCC student and cumulative grade point average.

Incomplete Grades
An incomplete (I) will be given only when circumstances justify additional time to complete the course. When an incomplete is granted, the course requirements must be completed within six weeks of the beginning date of the next academic session. Incompletes (I) not finalized within the appropriate time frame will convert to an F.

Credit by Proficiency
For selected courses, students may request credit by proficiency examination for previous experience or training. The student must be currently enrolled at CFCC and must not have enrolled in the course prior to taking the proficiency exam. The student must make written application to the Registrar and the department chair. Students may challenge a course only once. Students successfully passing a proficiency exam will receive credit for the course as a CR (credit for record).

Advanced Placement
An entering first-year student may receive semester hour credits based on Advanced Placement Examination of the College Entrance Examination Board (CEEB). These examinations are taken prior to the students high school graduation. Information on this examination program may be obtained from the high school counselor.

Cooperative Education
CFCC offers Cooperative Education in its Associate in Applied Science Degree programs. Co-op allows qualified students the opportunity to extend their classroom instruction to a viable work experience. Qualifying work experience must be related to the student's educational goals. Participating students receive college credits for the work experience and may use this as an elective.

To determine if you qualify or to find out more about Co-op, see your advisor.

CLEP
College Level Examination Program (CLEP) credit may be awarded for successful completion of specific exams. Official score reports (from CLEP) must be submitted to the Admissions and Records Office for evaluation of possible credit. CFCC does not administer CLEP exams.

Credit by proficiency, advanced placement and CLEP are awarded only for courses offered within the current curriculum of the institution and are appropriately related to the students educational program.

Proficiency Examination, Advanced Placement and CLEP credits are awarded for appropriate courses within a student's educational program of the College's current curricula.

Experiential Learning
CFCC does not award direct credit for previous experience or training. Proficiency exams or CLEP exams may be used as a means of receiving credit for prior knowledge.

Program Change
Students who desire to change from one program to another must see a Counselor to complete a Change of Program form. The counselor will evaluate program requirements and prerequisites and advise the student of any deficiencies. Students should also request re-evaluation of their transfer credits.

Catalog of Record
A student in continuous enrollment (except for summer session) may graduate under the requirements of the catalog in effect on his/her date of entry provided the courses are still offered or he/she may choose to meet the requirements of a subsequent issue. A student not in continuous enrollment must graduate under the provisions of the catalog in effect at the time of his/her last entry date or subsequent issue. A student who changes majors must meet the requirements of the catalog in effect at the time of the change of major.

Students enrolled in curricula which are revised to comply with the mandates of regulating accreditation or licensing agencies must meet those requirements in order to graduate from their program.

Course Repeat Policy
Courses that are repeated fall into three different categories:

1. Courses with an earned grade of C or better may be repeated one time with special permission from a counselor.

2. Courses with an earned grade of D, F, NC, or WF may be repeated a maximum of two times.

3. Audit courses may be repeated a maximum of two times.

When a course has been repeated, the higher grade will be used in GPA calculation. However, it is the responsibility of students who repeat classes to complete the necessary paperwork to have their academic transcripts evaluated. (The appropriate forms, Request for Transcript Review, are available through the Admissions and Records Office). Lower grades will be removed from GPA calculation; however, these grades will continue to appear on the academic transcript. Students may repeat a course a maximum of two times. When a course has been repeated twice, the highest of the three attempts will be used in GPA calculation.

Students who receive veterans benefits or financial aid should be advised that they may not receive funds for repeating courses which they have already passed.

Also, students who have received a degree from CFCC should be advised that the policy will not apply to courses which were taken to fulfill previous graduation requirements. A final student GPA (Grade Point Average) is computed at the time of graduation, and this GPA may not be recalculated as courses are repeated.

Academic Forgiveness

Students may request, in writing, to the Director of Enrollment Management to have previous credits deleted from their cumulative grade point averages. Academic forgiveness is designed to assist returning students with low grades to have a fresh start upon re-enrolling after having at least a three year period of non-enrollment at CFCC. Exceptions may be made by the Dean of Student Development.

Grades which may be disregarded from students' grade point averages are D, F, WF, and NC.

Requests for academic forgiveness must specify (1) the period of initial enrollment, (2) the courses and grades considered for forgiveness, and (3) the period of non-enrollment.

Students' granted academic forgiveness will have their cumulative grade point averages recalculated. While the forgiven grades will continue to appear on the official transcript, they will be marked with an asterisk and an explanation of exemption for grade point average calculation.

Academic forgiveness will be granted only one time.

In instances where academic forgiveness is granted for courses completed at CFCC and then transferred to another college or university, the receiving institution is not required to disregard those course grades.

Grade Appeal Procedure

Purpose

The purpose of the Student Grade Appeal Procedure is to provide an orderly and equitable process for resolving differences between students and faculty relating to instructional processes, grading or situations in the classroom where the student believes he/she is being treated unfairly or arbitrarily.

Procedure

Step 1 The student with the conflict must first discuss the issue with the class instructor to attempt to resolve the difference. Every reasonable effort should be made to resolve the matter at Step 1. This initial conference must occur within fifteen (15) class days of the beginning of the subsequent school term.

Step 2 If a satisfactory resolution is not reached at Step 1, the student may contact the Department Chair seeking resolution. The student must contact the chair within ten (10) class days of the conference with the instructor. The Department Chair will seek equitable resolution by conferring with both the student and the instructor.

Step 3 If the student continues to be dissatisfied, he/she may, within five (5) class days of the date of notification of Step 2, file a written notice with the instructional dean responsible for the course in question (Dean of Arts & Sciences or Dean of Technical/Vocational Education).

The Dean will review and evaluate the conflict to determine what action, if any, should be taken to resolve the conflict.

Written notification of that determination will be sent to the student within fifteen (15) class days of receipt of student's written notice.

Step 4 If the student is dissatisfied with the outcome of Step 3, he/she may file a written grade appeal with the Dean of Student Development. Within ten (10) class days of receipt of the written appeal, the Dean will convene the Academic Subcommittee of the Judicial Board to hear the conflict and make a final determination regarding the issue.

The committee will notify the Dean of Student Development of its decision.

The Dean of Student Development will notify the student of the Committee's decision. The decision of the Academic Subcommittee shall be final with no further appeals. (See Judicial Board section for committee membership).

Students dismissed from the clinical area in Allied Health and Nursing programs will follow the appeals process outlined in the program student policy book.

Satisfactory Progress Standards

Each student is expected to make satisfactory progress toward obtaining the degree or diploma he/she has declared. The cumulative grade point average is reviewed at the end of each semester to determine whether the student has made the expected progress. The minimum cumulative GPA for remaining in good standing is as follows:

Attempted Credit Hours	Certificate/ Diploma	Degree
1 - 12	1.70	1.75
12 - 24	1.80	2.00
25 - 36	1.90	
37 or more	2.00	

Academic Warning

Students whose grade point averages fall below 2.0 for any given semester will receive an academic warning. The notice of the warning will be sent to the students and their advisors. Students will be encouraged to see their advisors within the first ten days of the following semester.

Academic Probation

Students whose cumulative grade point averages fall below the Satisfactory Progress Standards will be placed on academic

probation for the following semester. Students and their advisors will be notified of the academic probation.

In addition to meeting with their advisors, students on academic probation must meet with a counselor to develop a "Plan for Success" and receive a registration release prior to any registration period. Students on academic probation may register for a maximum of thirteen credit hours, unless otherwise determined by a counselor.

Academic Suspension

Students who are placed on academic probation for two semesters will be placed on academic suspension for one semester. Students on academic suspension may not register for academic classes during the period of suspension, unless otherwise determined by a counselor.

Re-enrollment after Academic Suspension

Students may re-enroll after one semester of academic suspension by contacting a counselor to update their plan for improving academic performance. Students re-enrolling after academic suspension must follow the conditions required during academic probation.

Right of Appeal

The right of appeal is granted to any student who has been suspended from Cape Fear Community College. To initiate such an appeal, follow the process outlined in the Grievance Procedure.

Academic Probation Note to Persons Attending Under the G.I. Bill

All students are expected to make satisfactory progress toward obtaining the degree or diploma he/she has declared. If a student who is attending the College under the G.I. Bill fails to meet the required cumulative GPA, the student will be placed on academic probation for a period of one academic session. At the end of the probationary period, the student's cumulative GPA will be examined. If the cumulative GPA is below that required by the College, the Veterans Administration will be notified that the student has been "decertified" for G.I. Bill payment. When the student has achieved an acceptable cumulative GPA, VA recertification will be retroactive to the starting date in which satisfactory progress resumed.

Cheating

Cheating is any practice which gives one student a dishonorable advantage over another student engaged in the same or similar course of study. It shall include, but is not limited to, the following: securing or giving assistance during examinations or on required work; the improper use of books, notes, or other sources of information; submitting as ones own work or creation of any kind that which is wholly or in part created by another; or altering of any grade or academic record.

When a faculty member observes cheating on the part of the student, the case shall be handled in accordance with the following procedures:

1. The faculty member shall notify the student who was observed cheating that he/she will receive a grade of F on the assignment or F in the course. The faculty member, however, shall afford the student an opportunity to clarify his/her position. If the student accepts a grade of F on the assignment, the student may remain in the class.

If the student accepts a grade of F in the course, the faculty member has the option of withdrawing the student from the class with a grade of WF.

2. The faculty member shall submit a written report of the incident stating the facts and the action taken to the Dean of Student Development within three (3) class days from the time the incident occurred.

3. A student who considers the action taken to be unfair and who desires to appeal to the Academic Subcommittee of the Judicial Board, may present to the Dean of Student Development a written request within five (5) class days from the time the incident occurred.

Right of Appeal

The right of appeal is granted to any student who has been determined to be cheating at Cape Fear Community College. To initiate such an appeal, the student must submit a written appeal to the Dean of Student Development within five (5) class days after being notified of the action. The Dean of Student Development will present the appeal to the Academic Subcommittee of the Judicial Board within five (5) school days.

The committee will notify the Dean of Student Development of its decision. The Dean of Student Development will notify the student of the Committee's decision. The decision of the Academic Subcommittee of the Judicial Board shall be final with no further appeals.

Requirements for Graduation

To receive the Associate in Applied Science Degree, Associate in Arts Degree, Diploma or Certificate, a student must maintain satisfactory grades in all laboratory and class subjects and a cumulative grade point average of at least 2.00. (Students must earn a minimum of 25 percent of credit hour requirements at Cape Fear Community College.

Computer Competency

All CFCC graduates will possess competency in the basic use of computers. Students in programs not requiring specific computer competencies will be required to pass the Basic Computer Proficiency exercise offered through the Center for Academic Enhancement (CAE). Individual instruction is available in the CAE for students needing assistance with basic computer competencies. Results will be forwarded to Student Development and added to the students academic record prior

to graduation. Students may also acquire basic computer instruction by successfully completing a computer class.

Intent to Graduate

Candidates for graduation must file an Intent to Graduate form with the Admissions and Records office by the following dates:

Spring - February 15, 1999
Summer - June 15, 1999
Fall - September 15, 1999

Commencement exercises are held following the Spring semester and the Summer term.

Scholastic Honors

President's List
Full time (12 or more semester hours credit) students who have earned a grade point average of 4.00 will be placed on the President's List.

Dean's List
Full time (12 or more semester hours credit) students who have earned a grade point average of 3.50 with no grade lower than a C will be placed on the Dean's List.

Honors List
Part time (less than 12 semester hours and at least four semester hours) students who have earned a grade point average of 3.50 with no grade lower than a C will be placed on the Honors List.

President's Award
Graduating students who have achieved an A average, defined as a cumulative quality point average of 4.0 are recognized each year at graduation exercises for academic excellence.

Graduation with Departmental Honors
Those members of the graduating class who have demonstrated outstanding leadership, attitude and ability will be graduated with departmental honors. Since these are departmental awards, recipients are selected by lead instructors in cooperation with appropriate faculty members.

Financial Aid

Cape Fear Community College participates in Federal, State and local programs designed to assist students and their families in meeting the rising costs of obtaining a college education. While the family is seen as the primary source for educational funds, these programs can help meet the costs.

Types of Aid Available

PELL Grant - A Pell Grant is an award to help students pay for college. PELL is awarded to those students who have not earned a bachelors degree and who demonstrate exceptional financial need as determined by the Federal Government.

Supplemental Grants (SEOG)-Supplemental Grants, like PELL, are awarded to students with exceptional financial need who have not earned a bachelors degree.

College Work Study Program-Work Study provides financially qualified students the opportunity to earn money to help pay for college expenses.

A Stafford Loan is a low-interest loan made to financially qualified students to help pay for college expenses. This loan must be repaid.

PLUS Loans-A PLUS loan is a loan made to qualified parents of students to help the family pay for college expenses. This loan must be repaid.

State Programs
North Carolina Student Incentive Grant Program is a grant program based on exceptional financial need.

Local Programs
Private scholarships may be available to assist with educational costs. These scholarships may be based on financial need, academic excellence or a combination of both.

Applying for Financial Aid

The free application for Federal Student Aid (FAFSA) is needed to apply for the financial aid package. This financial aid package may include PELL, SEOG, Work Study, NCSIG and loan eligibility.

The Financial Aid office has these applications and will assist CFCC students in the processing and electronic submission process.

Verification

Federal tax returns and other income verification may be required by financial aid applicants based on information relating to the Student Aid Report.

Awards/Notification

Students will be notified by mail of the amount of their award. This award letter will list the dollar amount and the program their funds come from (example: PELL or SEOG).

Students not eligible to receive financial aid will receive a letter notifying them of their status.

Satisfactory Progress

Financial Aid students are required to maintain academic progression standards set by Cape Fear Community College and the Department of Education. Specific standards are sent to each student receiving aid.

Tuition/Fees/Books

Students who have been notified of awards can charge their tuition, fees and books up to the amount of their grants. Refunds can be picked up on the fourteenth day of class, after proof of class attendance has been submitted to the financial aid office. If there is not enough money in the award to cover all expenses the student will have to pay the balance at the time of registration or purchase of books.

Scholarships

Scholarships available as of the printing of this publication are as follows:

American Welding Society - Tuition scholarship for a full-time student in the Welding program.

Ava M. Hobbs Scholarship/Riverfest - Tuition scholarships for full-time Marine Technology students.

Cal and Diane Geary - Heavy Equipment and Transport Technology/Marine Concentration curriculum with the highest grade point average entering the spring semester will receive this scholarship.

Cape Fear Chapter-707-AARP - A partial tuition scholarship for an Associate Degree Nursing or Practical Nursing student who is a resident of New Hanover or Pender County.

CFCC Foundation Merit Scholarship - Five scholarships will be given to New Hanover and Pender County high school seniors.

Cape Fear Mini-Storage - This scholarship can be awarded to a student in any curriculum.

Cape Fear Section of the Instrument Society of America - A scholarship for tuition, books and fees for a second year Instrumentation Technology student.

Carolina Power and Light Company - Tuition scholarships for residents of North Carolina enrolled in a two-year technical or college transfer program.

Cotton Exchange Scholarship - Tuition scholarship for a full-time student.

Dean Hardwood, Inc. Charles D. Dean, Jr. - This scholarship is available to a student in any curriculum.

Eastern Carolina Section of America Welding Society - Students in the Welding curriculum may apply for this scholarship.

GOGAS-K.E. Austin Corporation - Students with a minimum grade point average of 3.0 may apply for this scholarship. Students may be in any curriculum.

Herbert T. Fisher Scholarship - Tuition scholarship for full-time students.

Instrument Society of America - Cape Fear Chapter - This scholarship is available for a second year student in the Instrument Society of America.

James Walker Nursing Memorial - Scholarship for tuition and other expenses are awarded to ADN students. Number awarded vary each year.

Jim and Pat Hickmon Pharmacy Tech - Pharmacy Technology students who have completed the fall semester may apply for this scholarship.

John P. Frandsen Memorial Scholarship (Society of Manufacturing Engineers) - A partial tuition scholarship for second year students in a program within Engineering Technology.

Lisa Gail Otis Memorial - Tuition scholarship for full-time students. The recipient must maintain at least a 2.00 GPA.

Ministering Circle Memorial Nursing Scholarship - Scholarships for tuition, books and fees for students in the Associate Degree Nursing program.

National Restaurant Association - A scholarship for tuition, books and fees for students in the Hotel and Restaurant Management program.

New Hanover Regional Medical Center Auxiliary, Inc. - Partial tuition scholarship for a student in the Practical Nursing program.

North Carolina Community College Scholarship Program - Full-time and part-time scholarships. Students must be North Carolina residents and maintain a GPA at or above the level required for graduation.

Olde Point Garden Club - Tuition scholarship for a student in Marine Technology.

Pioneer Service Roofing and Sheet Metal Company Scholarship - Tuition scholarship for students enrolled in the building trades.

River Enterprises, Inc. - A student in the Hotel/Restaurant Management curriculum may apply for this scholarship.

Rotary Club of Wilmington - Deserving students may apply for this scholarship.

Southern Bell Telephone and Telegraph Community College Scholarship - A tuition scholarship for full-time students who must maintain a GPA at or above the level required for graduation.

Southern Testing Services - Full-time students who have completed the first semester in the Welding curriculum may apply for this scholarship.

Wachovia Bank and Trust Company Technical Scholarship - A scholarship for a second year student in a two-year technical program.

Wilmington-Cape Fear Home Builders Association - Scholarships for full-time students in the Light Construction program.

Wilmington Cape Fear Rotary Club - The Club selects recipients.

Wilmington Engineers Club - A second year student in the Drafting and Design Engineering Technology curriculum with a minimum grade point average of 3.0 may apply for this scholarship.

Wilmington Kiwanis Club - This scholarship is available to students in any curriculum.

Wilmington Machinery Scholarship - A scholarship for tuition, books and fees.

Wilmington Women's Club - Scholarships for Associate Degree Nursing students.

Endowed Scholarships

(scholarships are needs-based unless otherwise noted):

CFCC Faculty Association Scholarship - (Endowment still developing - proceeds not available at this time).

Corning Scholarship - (Endowment still developing - proceeds not available at this time).

Deborah G. Britt Memorial Scholarship - (Endowment still developing-proceeds not available at this time.)

Dr. Hubert A. Eaton, Sr. Academic Scholarship Fund - A scholarship for tuition, general fees, parking fees and books for a full-time student.

Efson, Inc. Scholarship Fund -(Endowment still developing-proceeds not available at this time.)

Forty & Eight of the American Legion Registered Nursing Scholarship - Tuition scholarships open to Registered Nursing students at CFCC who have been residents of Brunswick, Columbus, New Hanover or Pender Counties for a minimum of five years.

George H. West Memorial Scholarship Fund - A scholarship for tuition, general fees, parking fees and books.

Interroll Corporation Academic Scholarship Fund - (Endowment still developing-proceeds not available at this time.)

Jessie Harper Newbold Memorial Fund - Scholarship for tuition, general fees, parking fees, and books for Licensed Practical Nursing students.

Joseph M. & Barbara S. Schwartz Academic Scholarship Fund - A scholarship for tuition, general fees, parking fees and books.

Leslie-Locke Scholarship Fund - Tuition scholarship for a student in a diploma or degree program. Employees and children of employees of Leslie-Locke will be given first priority.

Peoples Savings Bank, SSB Scholarship Fund - One annual scholarship for a student in the Light Construction program and one two-year scholarship for a student in a Business program.

Ratcliff-Richardson Academic Scholarship - (Endowment still developing-proceeds not available at this time.)

Sharpe Architecture - (Endowment still developing - proceeds not available at this time).

Tabitha Hutaff McEachern Academic Scholarship Fund - Scholarships for tuition, general fees, parking fees and books for full-time students.

Trask Scholarship - (Endowment still developing - proceeds not available at this time).

W. Mercer Rowe Scholarship - (Endowment still developing - proceeds not available at this time.

Wieland, Inc. Academic Scholarship-Anthony J. Chiarello - First consideration for this scholarship will be given to eligible employees and children of eligible employees of Wieland, Inc. Others also are encouraged to apply for this scholarship.

Wilbur W. Kirk Scholarship - Tuition scholarship for a full-time, second year Marine Technology student.

William A. Clark Memorial Scholarship Fund - Tuition scholarship for a full-time student with career goals to enter the legal profession.

Wilmington Business & Professional Women's Scholarship Fund - A scholarship for tuition, general fees, parking fees and books for a student preparing to develop a business or professional career.

Scholarship/Loan Fund:

River Enterprises, Inc., Scholarship/Internship Program - An annual fund established to provide financial assistance to full-time students in the Hotel and Restaurant Management program.

Veterans Affairs

The educational benefits available under the G.I. Bill are administered by the Veterans Administration which is the final authority for determining eligibility. These benefits are not only available to eligible veterans, but also to the spouses and

children of certain categories of living and deceased veterans, and to certain active duty military personnel, reservists and members of the National Guard.

Prospective students who believe they may be eligible for G.I. Bill benefits should contact the Veterans Affairs Office at the College.

Vocational Rehabilitation

This is a program operated through the Division of Vocational Rehabilitation in cooperation with the North Carolina Department of Human Resources. The Division finances such services as are necessary to enable physically, mentally and/or educationally disabled persons to become self supporting. If a prospective student has a physical disability or is limited in his/her activity because of a disability, he/she should contact the nearest Division of Vocational Rehabilitation Office. The Division Office for North Carolina is located at 1506-A Market Street, Wilmington, NC. The telephone number is (910) 251-5710.

Expenses

Tuition

Tuition is established by the North Carolina State Legislature and is subject to change without prior notification.

Tuition is due and payable on the day of registration. Any deferred payment or exceptions must be approved by the Chief Fiscal Officer. If tuition is a major factor in the students determination to attend CFCC, the student should contact the Financial Aid Office as soon as possible.

Payments can be made by cash, check, MasterCard or Visa. Students must bring credit cards to the Business Office to charge payments.

Activity Fee

A non-refundable activity fee is charged to all curriculum students for the Fall and Spring semesters. This fee is due and payable on the day of registration. The maximum fee charged is $18.00 per academic year.

Funds collected from activity fees are used to support the costs of student publications, athletics, and social activities sponsored by the Student Government Association.

Student Identification Card Fee

A fee of *$1.00 will be charged for a photo I.D. card to all curriculum and non-curriculum students. The photo I.D. card is valid for two consecutive years. This card must be presented by the returning student, at the time of registration, or he/she will be required to purchase a new card. The student I.D. card serves as the College library card and no materials will be issued by the Library without one.

Parking Permits

A parking permit may be purchased for *$8.00 when a student is paying for his/her tuition and fees in the Business Office. The parking permit is valid August through August.

Insurance

The College provides student accident insurance for curriculum students at no charge to the student. This is subject to approval by the Board of Trustees each fiscal year.

Nursing students are required to purchase professional liability insurance. The cost of this insurance is presently *$15.00.

Students may purchase health insurance; the enrollment forms and fee information are available in the Business Office.

Paramedic students are required to purchase paramedic professional liability insurance. The cost of this insurance is presently *$32.85.

Textbooks and Hand Tools

Students are expected to purchase textbooks which are usually available from the school bookstore at the beginning of each academic session. Although not required in all courses, students are encouraged to buy hand tools, generally required for apprentices in the area of their training. The bookstore does not have a charge or credit system; therefore, books and tools must be paid for at the time of purchase.

Bookstore

The CFCC bookstore is located on the first floor of the M.J. McLeod building. The bookstore provides textbooks, supplies and other collegiate materials. Hours of operation and policies governing textbook refunds and buy-backs are posted in the bookstore.

Refund

A pre-registered curriculum student who officially withdraws from any/or all classes prior to the first day of the College's academic session will be eligible for 100 percent tuition refund. Fees are non-refundable.

A 75 percent refund will be made if the student officially withdraws during the period starting from the first day and ending on the 20 percent day of the academic session. A student is not officially withdrawn until he/she processes a formal withdrawal form with the Admissions and Records office. The effective date of withdrawal is the day the Admissions and Records office receives the form.

Return Check Guidelines

Tuition payment made with a check returned by the bank will be considered nonpayment of tuition. Students will lose their classes or will not be able to attend classes until full restitution is made. Absences incurred due to nonpayment of fees will be counted in accordance with the College's attendance policy.

Transcript of Record

Upon written request of the student, a transcript of credits earned at Cape Fear Community College will be sent to other colleges and/or industry. The first transcript request is free of charge; each additional transcript request will cost *$2.00.

Graduation Fees

Fees for graduation are not included in the activity fee. The cost for caps and gowns are paid by the student directly to the company representative from whom they are being ordered. At present the cost is approximately $25.00, but is subject to change.

*(Applicable fees at time of printing are subject to change without notice.)

Institutional Indebtedness

No student will be permitted to graduate nor will a transcript be issued until all financial obligations to the College are satisfied.

Personnel in the Armed Services

Any active duty member of the armed services who is admitted as an out-of-state student will be charged the out-of-state rate but will pay the in-state rate with the difference being waived.

Any dependent relative of a member of the armed services who is abiding in this State incident to active military duty while sharing the abode of that member shall be eligible to be charged the in-state tuition rate.

Student Activities

Extra-curricular activities are a very important part of the total educational program at Cape Fear Community College. Student activities is an integral part of the fulfillment of the College's mission by providing a variety of activities that enrich students lives. The goals of these activities are to accommodate student diversity in backgrounds, abilities, interest, and career goals; enhance academic success; and promote diplomacy, unity, self discipline, physical and emotional well-being, and leadership skills.

Athletics and Intramural Activities

College athletics may include basketball, softball, golf, tennis, soccer and volleyball depending on student interest and facilities availability. Individuals participating in college athletics must have school insurance, be taking three (3) curriculum semester hours or more, and be in good academic standing.

College athletics enrich the academic, social, self discipline, competitiveness and leadership abilities of the student.

The goals and objectives of intercollegiate athletics are listed below.

Goals:
- To enhance academic success of student athletes
- To provide opportunities for participation in competitive college sports
- To promote the development of self discipline and leadership skills

Objectives:
- Monitor the academic grade point average of collegiate student athletes
- Develop and monitor sport activities based on student interest as gleaned from Student Interest surveys
- Monitor the retention and graduation rates of student athletes

Social Activities

The social development of the student is a very important phase of the total educational program at Cape Fear Community College. Under the sponsorship of the SGA, social events include dances, field days, cookouts and various other student body activities.

CFCC Clubs

The following clubs are recognized by CFCC:

Alpha Chi Sigma (PTK)
Bible
Collegiate Secretaries International
Criminal Justice
Drafting and Design
Drama
Industrial Electricity
Instrumentation
Machining Technology
Multi-Cultural
NC Association of Nursing
Paralegal
Pharmaceutical
Philosophy
Radiography
Republicans
Spanish

Phi Theta Kappa

The Phi Theta Kappa International Honor Society encompasses the upper ten percent of all students enrolled in the two-year college system. Alpha Chi Sigma is the CFCC Chapter of Phi Theta Kappa. Membership in Alpha Chi Sigma is extended by invitation only. To be eligible, a student must be enrolled in a regionally accredited institution offering an associate degree program. Full-time (12 credit hours) students must have completed at least 18 hours of course work leading to an associate degree and grade point average (GPA) of 3.5. Part-time (fewer than 12 credit hours) students must have com-

pleted 18 hours and have a GPA of 3.6 and must enjoy full rights of citizenship.

Student Ambassadors Program

Each year the College selects student ambassadors to represent CFCC at various college functions and special events. These students are selected based on their leadership ability, academic achievement, college involvement and their desire to assist other students and represent the College. The major purpose of the program is to teach students the importance of responsibility and teamwork, raise self-esteem and create a well rounded college experience.

CFCC Student Organizations and Clubs

Student organizations and clubs that help fulfill the mission of CFCC, accommodate student diversity, enhance academic success, promote diplomacy, unity, discipline, physical/emotional well being, and develop leadership skills are an important part of Cape Fear Community College.

New student organizations and clubs may be approved by the Dean of Student Development, in consultation with the Director of Student Activities, after written application is submitted to the Director of Student Activities. The written application must state the proposed name of the organization, the names of all students proposing the organization, the name of at least one faculty/staff member (full-time CFCC employee) who has agreed to serve as a sponsor to the group, and a complete description of the proposed activities of the group including, but not limited to, (1) purpose statement, (2) goals, (3) activity schedule, and a (4) complete description of the organization's proposed activities.

Once a student organization or club is approved, each individual activity must be individually approved by the Director of Student Activities before it is undertaken. Student Activity applications are available from the Director of Student Activities. It is the singular responsibility of the proposing organization to provide accurate and complete descriptions of individual activities of the organization. Inactive student organizations and clubs may be disbanded at the College's discretion.

The College reserves the exclusive right to immediately suspend any activity that is not being conducted in exact accord with the College-approved description of the activity or any activity that substantially disrupts or materially interferes with the work, discipline, and/or educational activities of the College (e.g., by violating reasonable college rules and regulations, interrupting classes or other college programs or activities, or inciting or producing imminent violence or other lawless action on college premises) as adjudged by designated college officials. Moreover, the College reserves the exclusive right to disband any student organizations or clubs that: (1) conduct such inappropriate and/or unapproved activities; and (2) fail to follow college guidelines.

Guidelines for Display or Distribution of Handbills, Posters, or Other Materials by Student Clubs, Community and Non-Profit Organizations, and Individuals

The College would like to provide educational opportunities to its students and others in the college community and believes that public expression through displays or distribution of handbills, posters, or other materials can play an important role in accomplishing this goal. The College also believes firmly in its obligation to college employees and its students to provide an environment that is conducive to learning. Public expression that enhances this environment by affording students and others in the college community exposure to a variety of ideas is encouraged. Subject to the terms and conditions set forth in these procedures, to any rules or regulations established by the College pertaining to display or distribution, and to other applicable laws, rules, and regulations, an organization or individual may display or distribute handbills, posters, or other materials that are aimed at providing information to students.

The following guidelines apply to materials posted on the campus of Cape Fear Community College, regardless of the source of those materials. They include:

- Posted information shall not contain obscene or libelous information or other information that is not protected by law.

- Information will not be placed over existing notices. Outdated material will be removed to make room for timely information.

- All event items must be removed by the sponsoring organization immediately following the event.

- All notes to be posted in stairwells, at doorways, or in other college locations not otherwise permitted in these guidelines, require approval by the Dean of Student Development five work days (Monday through Friday) in advance of the proposed posting.

- Due to extreme space limitations, information to be posted by student groups, community groups, or individuals in areas other than those reserved for Phi Theta Kappa and academically-oriented student clubs will be posted for a maximum of two weeks and must be no larger that 8.5" X 11".

- Items not approved in the prescribed manner will be removed and discarded.

- Placement of information on vehicles of others on campus is prohibited.

- The College reserves exclusive rights to re-arrange materials to accommodate the display of additional materials, to establish limits on the amount of information organizations may display, and to deny additional requests when all designated space is being used.

• Failure by any organization or individual to abide by CFCC guidelines will be grounds for denying additional requests from the same organization or individual.

The College will grant access by an eligible organization or individual to areas of college premises, designated for public expression on a neutral basis, in accordance with these procedures. A grant of access to any particular organization or individual does not mean that the College endorses the beliefs, practices, or views expressed by that organization or individual, and outside organizations and individuals are expressly prohibited from stating, implying, or suggesting in any manner that they are endorsed by or associated with the College or that any publication, announcement, or other form of expression provided by the organization or individual has been approved by or is associated with the College. Areas of college premises designated for public expression will not be denied to any organization or individual on the basis of the content of information sought to be provided by or the convictions or affiliations of that organization or individual.

Given the varying nature of different organizations and the wide-range of notices that individual students and/or college personnel may wish to post on occasion, additional guidelines apply to certain types of organizations and individuals, as noted in the following information:

Phi Theta Kappa
Space has been designated for displays of the Alpha Chi Sigma chapter of Phi Theta Kappa, CFCC's student honor society, and displays are subject to approval of chapter officers and faculty/staff sponsors.

Academically-Oriented Student Clubs
Academically-oriented student clubs that are directly linked in name, purpose, and practice to specific instructional disciplines or programs offered at CFCC (currently approved clubs include Collegiate Secretaries International, Criminal Justice, Drafting and Design, Industrial Electricity, Instrumentation, Machining Technology, NC Association of Nursing, Paralegal, Philosophy, and Spanish) may post discipline-related displays and materials, including announcements of upcoming club meetings, on college bulletin boards in their respective academic departments, subject to advance approval of faculty sponsors, department heads, and the appropriate division Deans.

Other Student Clubs and Community and Non-Profit Organizations
Other student clubs and community and non-profit organizations may distribute or display information relating to the approved purpose including announcements of upcoming meeting, in accordance with the following guidelines:

• All items displayed by other student clubs in the category must be approved by the faculty/staff sponsor and the Dean of Student Development. Items submitted by community and non-profit organizations must be approved for display by the Dean of Student Development. The Dean of Student Development will consider all requests for display and distribution in light of the availability of areas that are designated for such purposes and the availability of space for the proposed display or distribution within any designated area(s). Requests for access to distribute or display publications will be reviewed and granted on a first-come, first-serve basis. The College will communicate its approval or disapproval of access for distribution or display and any conditions of access to the requesting organization or group, generally within three business days after the request is submitted. Access for display or distribution of materials will not be provided if previously approved requests for access to display or distribute materials have resulted in space being unavailable for additional displays or distributions within any designated area(s). Approved materials may be displayed on the designated bulletin board located near the elevator on the first floor of the McLeod Building. No one club may use a disproportionate amount of the allotted space unless other clubs do not elect to display information.

• Committee organizations and individuals may display approved notices on the designated bulletin board located on the first floor of the McLeod Building beside room S118.

Appeal
Any organization or individual who believes that the opportunity to display or distribute handbills, posters, or other materials has been denied improperly may appeal the denial by providing written notice of the appeal to the Dean of Student Development within three business days of the date on which the organization or group has been advised of the denial. Information supporting the appeal (which may include a written statement or, at the election of the individual or group, a conference with the College's Judicial Board) also should be provided. As a general rule, the Judicial Board will make a final decision within five business days of receiving the appeal and any written information or, if a conference with the organization or individual has been scheduled, after conducting the conference.

Student Publications

The *Sea Devil* and *The Informer*, written and edited by students, are supported by student activity fees. These publications are supervised by an academic advisor, the Director of Student Activities, and the Dean of Student Development. The editorial freedom afforded to student editors also involves parallel responsibilities that are governed by canons of responsible journalism, such as the avoidance of libel, indecency, vulgarity, undocumented allegations, attacks on personal integrity, and the techniques of harassment and innuendo.

The President has the authority to determine responsible journalism and to prohibit the publication of any material in violation of the canons of responsible journalism.

Student Government Association

The Student Government Association (SGA) is the official organization authorized by the administration to represent all students at Cape Fear Community College. The SGA is a democratic organization and as such elects officers each year.

The State Board of Community Colleges, the CFCC Board of Trustees, and the administration, faculty, and staff fully support the SGA. This support is most visible in the office of the SGA President who, upon election to that office, automatically becomes a member of the Board of Trustees and the College Council. Additionally, students have SGA representatives on standing college committees. These committees are charged with annually reviewing and recommending changes to the College.

The Student Government Association is a very active organization; it is the voice of the student body and has paved the way for good lines of communication between students and administration. Students receive practical experience in responsible citizenship through participation in a program of self-government.

The SGA is governed by its Constitution and Bylaws. Copies of these documents are available in the SGA office.

Alumni Association

Although alumni associations are thought to be made up primarily of former students and friends, the CFCC Alumni Association encourages students to participate while still attending school. Information about the CFCC Alumni Association is available in the office of the Director of Student Activities.

General Information

Change of Name/Address

If a student should have a name or address change while enrolled at the College, he/she should fill out an INFORMATION UPDATE FORM in the Admissions and Records Office.

Children on Campus Policy

Children cannot be taken into classrooms, laboratories or shops unless authorized by college personnel. Responsible adults will be expected to remove disruptive children immediately. Children cannot be left unattended on campus including the Learning Resources Center, the cafeteria, lounge areas, registration sites, administrative offices or parking lots.

Failure to comply with this policy will lead to disciplinary action as outlined in the College Catalog, Student Handbook and Faculty and Staff Handbook. Visitors violating this policy will be notified of the violation and continued violation will result in the individual being asked to leave campus.

Dress

CFCC invites prospective employers and industry representatives on campus throughout the academic year. Therefore, while students may dress casually, they are encouraged to dress neatly and cleanly. Students are required to wear shoes to help ensure safety on campus and/or college facilities.

Where special dress or safety devices are required by the College, North Carolina Community College System, regulations, or public law, students will be expected to fulfill those requirements.

Food Services

Hot food and snacks are available in the student lounge which is located on the first floor of the M. J. McLeod (S) Building from 7:30 am to 9:00 pm Monday through Thursday; 7:30 am to 8:00 pm Friday; and 9:00 am to 1:00 pm Saturday.

Game Rooms

Billiards, video games, and table tennis are located in the cafeteria area on the first floor of the M.J. McLeod (S) Building and are open daily during normal school hours.

Graduation Needs

Orders for caps, gowns and class rings will be accepted by a company representative during announced dates. Students who anticipate graduating at the close of Spring or Summer academic sessions will be provided a limited number of commencement announcements.

Housing

The College does not have housing facilities. However, upon request and if known, school officials will provide to students information concerning available housing. Students are advised to have a clear understanding with landlords regarding all rental and/or lease agreements.

Lost and Found

The Switchboard Operator will accept articles found on campus and, if not claimed, store them for six months. Articles not claimed within six months will be given to a non-profit organization.

Parking

The student parking lots are located two blocks north of the Wilmington campus, diagonally across from WWAY television station. The parking lots will accommodate 486 vehicles.

Handicapped parking is provided at each of the Wilmington campus buildings. Behind the Galehouse Building there are three wheelchair and nineteen handicap/special parking spaces; the Electronics Technology Center has two spaces; the Burnett Building has two spaces. Disabled persons wishing to park behind the Galehouse Building should stop at the parking attendants station for assistance.

Note: Anyone displaying a handicap decal may park in any of the metered or time allotted parking spaces in the downtown area without being ticketed, but your decal must be displayed.

Telephones

Pay telephones are available for students to use. Students are requested not to use phones located in college offices unless it is an emergency.

Incoming calls for students will be honored only in the case of an emergency.

Student Expectations, Rights, and Responsibilities

Student Records

CAPE FEAR COMMUNITY COLLEGE RESPONSIBILITIES UNDER THE FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT OF 1974 (THE BUCKLEY AMENDMENT)

Under the Family Educational Rights and Privacy Act of 1974, the rights of the student and the responsibilities of the institution concerning the various types of student records maintained by the institution are established. Consistent with this legislation, Cape Fear Community College establishes the following policy to ensure compliance. Failure to comply with standards prescribed in the Act could jeopardize federal funding received by the institution and its students.

Rights of Students

In compliance with the law, an individual becomes a student when he/she registers at the College. Upon reaching age 18 or attending an institution beyond the high school level, the student has the right to view his/her own school or college records. These records include the academic transcript of the College, post-secondary transcripts, high school transcripts, and other documents maintained as part of the students permanent file with the exception of confidential letters of recommendation. All permanent academic records are housed and maintained by the Director of Enrollment Management.

CFCC requires written authorization from the student prior to release of academic records. A minimum of 48 working hours will be required by the College to access the requested academic information. The student may inspect, copy, and review his/her records in the Director of Enrollment Management's Office. There may be a charge for copies.

Rights of Parents

Parents of a child who is under the age of 18 and has never attended an educational institution beyond high school level has the right to inspect and review that childs academic records. After a student reaches the age of 18 or enters a post-secondary institution, the parent will be denied access to the students academic record unless the student gives written consent. The College assumes that all students are independent adults attending an institution designed for adult education. Parents do have the right to review the academic records of their child if they are claiming the child as an income tax deduction; however, they must show proof of the claim.

Rights of Faculty

The faculty of the College has a legitimate educational interest in a students academic records. Therefore, access to those records is authorized by the institution. Along with this access comes certain obligations and responsibilities.

A faculty member shall not access educational records of any student for which he/she does not have a direct advisory responsibility. Those with direct advisory responsibility include the current instructors of the student, the students faculty advisor, and the appropriate department head and division chair. A faculty member not professionally associated with a student shall not access educational records of the student without the written consent of the student.

A faculty member shall not disclose any information from a students record to a third party (i.e., other students, other faculty members, employers, etc.) without the written consent of the student. Parents of the student do not have special access rights and should not be given information without the students written consent.

A faculty member shall be responsible for the security of all academic information in his/her possession. These records must not be accessible to other students and unauthorized personnel.

A faculty member shall refrain from disclosing academic information by phone without the expressed written consent of the student.

Rights of Administration

Student Development and specifically the Director of Enrollment Management's Office, has the responsibility of maintaining and safeguarding the academic records of all students of the College. Consistent with this responsibility, the personnel of Student Development will access student records as needed. However, these individuals bear the responsibility for ensuring that no unauthorized disclosure of student academic information occurs without the expressed written consent of that student.

The President, Vice-President and Deans of the College may access student records when needed to facilitate the students educational pursuit.

Educational records of a student will not be accessed for employment decisions without the expressed written consent of the student. Information from student academic records may be shared in aggregate for educational research purposes.

Directory Information

Directory information includes name, major field of study, full time/part time enrollment, the most recent college attended, dates of enrollment, and degrees and awards received.

Students have the right to withhold disclosure of any directory information by completing a request for non-disclosure in the

Director of Enrollment Management's Office. Requests for non-disclosure must be filed annually. The College assumes that a student's failure to file a request for non-disclosure indicates approval for disclosure.

The complete text of The Buckley Amendment is available for review in the Office of the Director of Enrollment Management.

Conduct

It is expected that at all times the student will conduct himself/herself as a responsible adult. Participation in any activity which, in the opinion of the administration, disrupts the educational process or functioning of the College may result in disciplinary action. Specific violations of conduct include, but are not limited to the following:

a. destruction of school property
b. stealing
c. cheating
d. gambling
e. use of profane language
f. engaging in personal combat
g. possess or carry, whether openly or concealed, any weapon on campus; the only exception to this directive is in the case where training or job requirements of the students or employee requires that such be carried
h. possession and/or use of alcoholic beverages
I. possession and/or use of any drug as defined under the North Carolina Controlled Substance Act, G.S. 89-90 through G.S. 90-94

Violation of these rules of conduct will not be tolerated in or on any part of the campus, its satellites, equipment it operates, or wherever its employees or students are required to be while performing their duties as employees or students. Any violation of these standards of behavior may result in dismissal from the College.

Additional classroom rules will be designated by instructors or supervisors and must be followed by all.

Any person observing conduct violation(s) should immediately contact the Dean of Student Development.

Conduct Probation and Suspension

Any student whose conduct becomes unsatisfactory may be placed on conduct probation; however, a student is subject to immediate suspension if deemed necessary by the Dean of Student Development. Any misconduct after a person is placed on conduct probation may result in prompt suspension.

Right of Appeal

The right of appeal is granted to any student who has been suspended from Cape Fear Community College for conduct violations. To initiate such an appeal, follow the process outlined in the "Grievance Procedure" section of this handbook.

Weapons on Campus

It is unlawful for any person to possess or carry, openly or concealed, any weapon on campus. The only exception made to this directive is in the case where training or job requirements of the student or employee requires that such a weapon be carried.

Crime Awareness and Campus Security Policy

I. Cape Fear Community College adheres to the following Crime awareness and Campus Security Policy.

A. In case of an accident, illness, criminal actions, and other emergencies, the Dean of Student Development must be notified immediately. (If any of the above situations occur at any campus site (example: Pender County Satellite) the appropriate Director of that location must be notified.

B. The Director of Institutional Services or the designee is responsible for security and access to all campus facilities.

C. Campus law enforcement is handled by a local security agency. When further action is necessary they seek assistance from city police or county law enforcement.

D. Violations involving the possession, use, and sale of alcoholic beverages, possession and/or use of any drug as defined under the N.C. Controlled Substance Act will not be tolerated in or on any part of the campus, its satellites, equipment it operates, or wherever its employees or students are required to be while performing their duties as students or employees. Any violations of these standards of behavior may result in dismissal from the College.

E. All incidents (criminal and security) must be reported to the Dean of Student Development (day) or Duty Administrator (night) and/or campus security guards.

F. All incidents (crime and security) must be reported on the appropriate form and turned in to the Dean of Student Development.

II. Security Operations

A. Cape Fear Community College (CFCC) has a contract with a local, professional security firm to provide security for the Wilmington campus as well as off campus facilities (example: Roland-Grise) when classes are being held or when it is requested by sponsors of special events. An on-site security system is in place at both Pender County facilities. These systems are tied into local police departments.

B. The guards have portable radios and are constantly patrolling. Should any event requiring security occur, the guards are to contact the City of Wilmington Police (station is one-half block away) and then try to control event until

police arrive. Events are reported to the appropriate personnel after the situation is under control. Security escorts are available to walk students, faculty and staff to their car at night. The switchboard operator, located on the second floor of the McLeod Building, will arrange escorts.

III. Information concerning crime awareness and campus security procedures and practices are disseminated to students and employees through the following.

A. Faculty, staff and student handouts.
B. Catalog and Student Handbook
C. Orientation.

IV. Information data on crime and security violations will be collected starting August 1, 1992. Results of the data will be reported and available for distribution to interested parties.

Crime Data

WILMINGTON CAMPUS

Occurrence	1994	1995	1996	1997
Murder	0	0	0	0
Forcible Sexual Offense	0	0	1	1
Non-forcible Sex Offense	0	0	0	0
Robbery	1	0	0	0
Aggravated Assault	0	0	0	0
Burglary	0	0	0	0
Motor Vehicle	0	0	0	0

BURGAW CAMPUS

Occurrence	1994	1995	1996	1997
Murder	0	0	0	0
Forcible Sexual Offense	0	0	0	0
Non-forcible Sex Offense	0	0	0	0
Robbery	0	1	0	0
Aggravated Assault	0	0	0	0
Burglary	0	0	0	0
Motor Vehicle	0	0	0	0

HAMPSTEAD CAMPUS

Occurrence	1994	1995	1996	1997
Murder	0	0	0	0
Forcible Sexual Offense	0	0	0	0
Non-forcible Sex Offense	0	0	0	0
Robbery	0	0	0	0
Aggravated Assault	0	0	0	0
Burglary	0	0	0	0
Motor Vehicle	0	0	0	0

Judicial Board

Cape Fear Community College supports students' constitutional right to due process. The Judicial Board is the vehicle to insure the right of appeal.

The Judicial Board will consist of eleven (11) representatives from all areas of the College - faculty, staff, students and administration. The entire board will hear appeals concerning academic suspension, conduct suspension and charges of discrimination and/or denial of service on the basis of race, color, national origin, age, religion, handicap or sex. The Judicial Board's subcommittees will act on other categories of student appeals. The subcommittees, areas of responsibility, and composition are listed below.

Academic Subcommittee of the Judicial Board
The subcommittee will hear appeals in the matter of cheating and grades. The subcommittee consists of two (2) faculty, two (2) students and one (1) Student Development staff. One faculty member is to be chosen from each of the academic areas - vocational, technical and college transfer. The committee will select its chairman from the faculty membership.

Financial Aid Subcommittee of the Judicial Board
The subcommittee will hear appeals concerning suspension from the College's financial aid programs. The committee will consist of one (1) representative from the following areas - Fiscal Services, faculty, and student. The chairman will be selected by the committee.

Residency Status Subcommittee of the Judicial Board
The subcommittee will decide matters of residency status for tuition purpose. The committee will consist of one (1) representative from Student Development, college staff, and a student. The committee will select its chairman.

Grievance Procedure

The right of appeal is granted to any student who has been placed on academic suspension, conduct suspension or feels he/she has been discriminated against or denied service on the basis of race, color, national origin, age, religion, handicap or sex.

To initiate such an appeal, the appealing student must submit a written appeal to the Dean of Student Development within five (5) class days after being notified of the suspension or aggrieving event. The Dean of Student Development will present the appeal to the Judicial Board within five (5) class days of receipt of the written appeal. The Dean of Student Development will notify the student of the Judicial Board's decision. The decision of the Judicial Board shall be final with no further appeals.

Written Student Complaint

As a matter of practice, CFCC subscribes to the philosophy that student complaints are best resolved on an informal basis. When a student has a complaint he/she should attempt to resolve concerns with college personnel having responsibilities directly at the source of the complaint. When informal procedures do not resolve concerns, written student complaints should be sent to the Dean of Student Development who will determine the appropriate college personnel to review the complaint. The student should receive written acknowledgment of the complaint from the Dean of Student Development within five (5) working days.

The complaint will be reviewed and a collaborative effort will be made to resolve the complaint. Within twenty (20) working

days of receipt of the complaint, the student will receive notification of the resolution of the complaint, or of the Colleges position on the complaint.

Sexual Harassment

Discriminatory personal conduct, including sexual harassment toward any member of the College, is a violation of both State and Federal law and school policy and cannot be tolerated in the College community.

All members of this school community are expected and instructed to conduct themselves in such a way as to contribute to an atmosphere free of sexual harassment. Sexual harassment of any employee or student by any other employee or student is a violation of the policy of this school and will not be tolerated.

Requests for sexual favors and other unwelcome verbal or physical conduct of a sexual nature by any employee or student constitutes sexual harassment when:

- submission to such conduct is made either explicitly or implicitly a term or condition of an individuals employment, academic or student status, or

- submission to or rejection of such conduct by an individual is used as the basis for employment decisions affecting that individual, or

- such conduct has the purpose or effect of interfering with an individuals performance or creating an intimidating, hostile, or offensive environment in the workplace or the classroom.

Any student who believes that he or she has been subjected to sexual harassment in violation of this policy should make a confidential complaint to one of the Student Development counselors. If this is not feasible, the student may take the complaint to the Dean of Student Development.

Evacuation of Buildings

An evacuation diagram is located on each floor and in each room of every building. The primary route for evacuating a building is indicated by a solid red line. If, for any reason, the primary route is blocked, use the secondary escape route indicated by a broken red line on the diagram. All occupants will follow this procedure EXCEPT HANDICAPPED PERSONS: CFCC staff will make provisions for all handicapped persons to be evacuated from the building by way of utilization of the outside stairwell and Wilmington Fire Department personnel.

Emergency Evacuation

Everyone must exit the building when the fire alarm sounds. IT IS NOT AN OPTION TO REMAIN IN THE BUILDING. Treat all alarms as the real thing.

Student/Employee Drug and Alcohol Policy

Cape Fear Community College is committed to providing an educational atmosphere that is free of substance abuse and encourages healthy and safe lifestyles. Listed below is information on Cape Fear Community Colleges policy on drugs and alcohol, health risks involved in drug/alcohol abuse, North Carolinas laws regarding drug use, and community resources pertaining to substance abuse.

The use and abuse of drugs and alcohol are subjects of immediate concerns in our society. These problems are extremely complex and ones for which there are no easy solutions. From a safety perspective, the users and/or abusers of drugs or alcohol may impair the well-being of all employees, students, and the public at large, and may result in property damage to the College. Therefore, in compliance with the Federal Drug-Free Workplace Act of 1988 and the Drug-Free Schools and Communities Act Amendments of 1989, it is the policy of Cape Fear Community College that the unlawful use, possession, distribution, manufacture, or dispensation of a controlled substance or alcohol, is prohibited while on college premises, the College workplace, or as part of any college sponsored activity. Any student violating this policy will be subject to disciplinary action up to and including termination or expulsion and referred for prosecution.

1. Cape Fear Community College does not differentiate among unlawful users, sellers, or pushers of drugs or alcohol. Any employee or student who uses, possesses, sells, gives, or in any way transfers alcoholic beverages or a controlled substance is subject to disciplinary proceedings by the College, and referred for prosecution.

2. The term controlled substance means any drug listed in CFR part 1308 and other federal regulations, as well as those listed in Article V, Chapter 90 of North Carolina General Statutes. Generally, these are drugs which have a high potential for abuse such as: Marijuana, Cocaine, PCP, Heroin, and Crack among others. They also include legal drugs that are not prescribed by a licensed physician. The term alcoholic beverage includes beer, wine, whiskey and any other beverage listed in Chapter 188 of the General Statutes of North Carolina. Persons within the College community are responsible for knowing about and complying with the Cape Fear Community College Drug/Alcohol Policy.

3. Any employee or student who unlawfully possesses, uses, sells, or transfers alcoholic beverages or illegal drugs to another person; or who is convicted of violating any criminal drug or alcoholic beverage statute while in the workplace, on college premises, or as part of any college sponsored activity, will be subject to disciplinary action by the College up to and including termination or expulsion, and referred for prosecution. Specifically, any such person convicted of a felony, or a misdemeanor which results in an active prison sentence will, if a student, be expelled, or if an employee, be terminated from employment (subject to existing disciplinary policies appli-

cable to state or federal law which may apply to employees). Other misdemeanors or convictions will be evaluated on a case-by-case basis and the specific penalties may range from written warnings with probationary status to enrollment expulsions and employment discharges. The College may also require the employee or student to successfully complete a drug abuse treatment program as a precondition for continued employment or enrollment. Persons charged with illegal drug/alcohol involvement may be suspended pending any legal proceedings if, it is determined by the President, or his designee, that the persons continued presence within the College would pose a serious and immediate danger to the health or welfare of other persons within the College.

4. Each employee or student is required to inform the Personnel Director or the Dean of Student Development, respectively, in writing within five (5) days after a conviction of any criminal drug or alcoholic beverage control statute where such violations occurred in the college workplace, on college premises, or as part of any college sponsored activity. A conviction means a plea of or a finding of guilt (including a plea of nolo contendere) and the imposition of a sentence by a judge or jury in any federal or state court.

For those students or employees receiving or working under a federal grant, the College must notify the United States governmental agency from which a grant was made within ten (10) days of receipt of such notice from the grant employee, or otherwise after receiving actual notice of a criminal drug conviction. Appropriate disciplinary action will be taken by the College within 30 calendar days from the receipt of such notice. The law requires that all employees abide by this policy as a condition for continued employment on any federal grant.

Community Services

Aids Hotline	343-6653
Alcoholics Anonymous	762-1230
Ambulance, Fire, Police, or Sheriff	911
Cocaine Hotline	1-800-222-0828
Columbia Cape Fear Memorial Hospital	452-8100
Crisis Line	392-6936
Dept. of Social Services	341-4700
Domestic Violence Shelter & Service	343-0703
Health Department, NHC	343-6500
Human Relations Commission, NHC	341-7171
Missing Children Help Center	343-6559
Narcotics Anonymous	1-800-234-0420
New Hanover Regional Medical Center	343-7000
Rape Crisis Center	392-6936
Southeastern Center	251-6440
The Oaks	343-7787
Wilmington Treatment Center	762-2727
YMCA	251-9622
YWCA	799-6820

For referrals to a community service agency, see a counselor in Student Development.

EXTENDED SERVICES

Continuing Education Department

General Course Information

CFCC provides training in many areas through its Continuing Education Department programs. Classes are held at the Wilmington downtown campus and at other locations throughout New Hanover and Pender counties. Most classes prepare individuals for employment, or upgrade workers already employed. Besides meeting economic needs, some classes help to improve the adults social and cultural standing in the community.

Training is also provided for employees of area industries and public agencies. Once a specific need has been established, classes can be offered in that area at virtually any time. Full details can be obtained by calling the office of the Dean of Continuing Education, (910) 251-5670.

Admission Requirements

Generally, any person who is 18 years of age or older, or whose high school class has graduated, is eligible for admission to Continuing Education classes. Applicants are usually admitted on a first-come, first-serve basis. Some classes have specific admission requirements. In such cases, applicants will be properly notified.

Registration and Special Information

For information concerning the current class offerings, and their locations in New Hanover County, call (910) 251-5670. For Pender County classes, CFCC Burgaw Campus, call (910) 675-1439/ 259-4966. For CFCC Hampstead Campus classes, call (910) 270-3069.

The Pender County CFCC Burgaw Campus is located in the Burgaw Industrial Park. This location is approximately five blocks south of downtown Burgaw next to Burgaw Middle School.

The Pender County CFCC Hampstead Campus is located in the former Topsail Middle School, Hampstead.

Students register at their first class meeting. The individual's Social Security Number is required for registration. Course cost (tuition) will usually be $35.00 plus the cost of any required text(s) and supplies. A high school diploma is not required for registration. Registration fees for Continuing Education Department classes are not always refundable. The refund policy, as set forth by the North Carolina General Assembly, follows in the next paragraph. Many classes are FREE for N. C. citizens 65 years of age or older. However, for classes designated as self-supporting all students must pay the tuition fee and costs for required text and supplies.

Refund Policy

Please note the following Refund Policy for EXTENSION PROGRAMS, Statutory Authority G.S. 1150-5; Eff. February 1, 1976; Amended Eff. September 1, 1993; August 1, 1983; August 17, 1981; July 8, 1980.

.0203 EXTENSION PROGRAMS

(d) Registration Fee Refunds. A refund shall not be made except under the following circumstances:

1. For classes that are scheduled to meet four times or less, a full refund shall be made upon the request of the student, if the student officially withdraws from the class(es) prior to or on the first day of the class(es).

2. For classes that are scheduled to meet five or more times, a full refund shall be made upon the request of the student if the student officially withdraws from the class(es) prior to or in the official 10% point of the class(es).

3. For classes beginning at times other than at the beginning of the semester, applicable provisions as noted in subparagraphs (d) (l) and (2) of this rule apply. For contact hour classes, 10 calendar days from the first day of the class(es) is the determination date.

IMPORTANT: Occupational extension courses are designed for the specific purposes of training individuals for employment, upgrading the skills of persons presently employed, and retraining others for new employment in occupational fields. Students repeating an occupational class more than two times may be charged a higher tuition fee based on actual class contact hours.

Public Health and Safety Division

Emergency Medical Technician Programs

For information & class schedules, call (910) 251-5681.

Emergency Medical Technician - training prepares the student to perform basic patient care in a pre-hospital setting. After successful completion of the course, a state examination is required for certification.

Insurance Programs

For information & class schedules, call (910) 251-5681.

CFCC's Continuing Education Department provides continuing Education classes for Certification for Insurance Agents as

mandated by the North Carolina Department of Insurance. Provider #9090.

Nurse Aide Program
For information & class schedules, call (910) 251-5681.

Nurse Aide Level I - Prepares graduates to provide personal care and perform basic nursing skills for the elderly and other adults.

Nurse Aide Level II - Prepares Nurse Aides to perform more complex nursing skills.

Nurse Aide Refresher - A fifteen (15) hour Refresher Course designed for skill/competency testing of Nurse Aide employees.

Family & Adult Home Care Programs
For information & class schedules, call (910) 251-5681.

Family Care Home-Personal Care Training - A twenty (20) hour training program for aides in family care homes who perform basic personal care tasks.

Adult Care Home-Personal Care Training - A forty (40) hour training program for personal care aides in adult care homes of seven or more residents and homes for developmentally disabled adults who perform basic personal care tasks.

Electrical Contractors' Renewal Course Programs
For information, call (910) 251-5681.

The Electrical Contractors' Renewal Courses are held throughout the year. This provides Electrical Contractors the six hours of mandatory continuing education credits required to maintain a license.

Real Estate Program
For more information, call (910) 251-5689.

CFCC offers eight (8) hour seminars during the months of December, February, and May which are designed to provide Real Estate Agents their required continuing education credits as mandated by the North Carolina Real Estate Commission. Provider #1021.

Concealed Carry Safety Course
For information & class schedules, call (910) 251-5689.

Teaches the aspects of the N.C. Concealed Carry-Handgun law including fundamentals of safety and basic marksmanship. 6 hours of classroom and 6 hours range training. Course is offered twice a year.

EPA/CFC Refrigerant Recovery/Recycling Certification Exam
For information & schedule, call (910) 251-5689.

Course designed for HVAC Technical personnel to assist in meeting EPA mandated training requirements in preparation for the N.C. State Board of Refrigeration Examiners. Course is offered every three months.

Leisure & Recreational Courses
Courses offered in Pottery, Painting and Photography.
For information & class schedules, call (910) 251-5689.

Computer Instructional Programs
Call (910) 259-4966/675-1439 for classes at CFCC-Burgaw, and (910) 270-3069 for classes at CFCC Hampstead.

Computer classes are offered throughout the year. New classes begin monthly. Check the various CFCC-campuses for computer courses currently available.

N.C. General Contractors Residential Licensing Seminars
Seminars are offered every three months. For information, dates and times, call (910) 251-5689.

Basic Skills Division

The Basic Skills Division includes the following programs for adults 16 years of age or older, who wish to begin, continue, or expand their educational skills:

Adult Basic Education (ABE)
General Education Development (GED)
Adult High School Diploma (AHS)
Compensatory Education (CED)
English As A Second Language (ESL)
Human Resources Development Program (HRD)
Youth Life Enhancement Program (YEP)
LIFT-OFF Program
Single Parent/Displaced Homemaker Program
JobLink Career Center

All classes are offered free at convenient times and locations. Anyone under 18 years of age must have school and parental release forms. For more information about the Basic Skills Division programs, including release forms, call (910) 251-5679.

Adult Basic Education (ABE) Classes
The ABE program is designed for persons 16 or older with or without a high school diploma or its equivalency who function below the ninth grade reading level. Students receive individualized instruction in basic math, language, and reading. These classes improve adults basic skills preparing them to later enroll in GED or Adult High School Diploma classes. Classes are offered at various times and at convenient locations on and off the CFCC campuses.

General Educational Development (GED) Classes

The GED program is designed for persons 16 or older with or without a high school diploma or its equivalency who have not graduated from high school and who function at or above the 9th grade reading level. Students receive individualized instruction to prepare for the five areas of the GED exam. Persons who pass the GED will receive a high school equivalency certificate. Students who already have a high school diploma are not eligible to earn a GED.

Pre-registration/Orientation

To enroll in ABE or GED classes at CFCC-Wilmington, students must attend a preregistration and orientation session. No appointment is necessary, but only the first 25 students will be admitted for each session. All sessions are held in room S-107 on the main campus of CFCC. Students who wish to enroll in off-campus classes may register at class site. Cost is FREE.

GED Testing

For more information on test dates and times, call (910) 251-5143.

Individuals wishing to take the high school equivalency exam must provide proof of age, identity, and N. C. Residency. (A valid N. C. Driver's License or N. C. Special ID will satisfy these requirements.) A pre-GED pass form as well as your social security number are required. The cost of the GED test is $7.50.

PRE-GED-Testing

No appointment is necessary; however, no one will be admitted after the test has begun. Students must pass the pre-GED test before taking the GED Test.

For more information, call (Wilmington) 251-5641. Cost is FREE.

Adult High School Diploma (AHS) Classes

The AHS program is designed for persons 16 or older regardless of whether or not they have a high school diploma or its equivalency. Students enrolled who have a high school diploma are not eligible to earn an AHS diploma, but they may earn individual units. Students who have a GED, but need an AHS diploma, may be enrolled and are eligible to earn an AHS diploma. Students take courses to complete the required 20 units. They must also pass the N. C. Competency Test. To enroll, students must attend preregistration, furnish a transcript of previous high school credits and have proper release forms, if under 18 years of age. All New Hanover County classes will be held on Monday through Thursday nights on the main CFCC Wilmington campus from 5:45 pm - 9:45 pm. All Pender County classes will be held at the CFCC Burgaw campus from 5:30 pm - 9:30 pm. Cost is FREE.

For more information, call (New Hanover) (910) 251-5682.

English As A Second Language (ESL) Classes

The ESL program is designed for adult students whose native language is not English. Instruction focuses on English skills which will enable students to interact effectively in the community and at the workplace. Persons wishing to attend classes may enroll at the class sites. Locations and times are listed below. For more information, call (910) 251-5149. Cost is FREE.

Compensatory Education Program Classes

The CED program is designed for mentally challenged adults to prepare them to be able to function in society. Areas of classroom instruction include community living, consumer education, vocational education, math, social science, language, and health. For more information, call (910) 251-5678. Cost is FREE.

Human Resources Development (HRD) Program

The Human Resources Development (HRD) Program provides classes in employment and marketing techniques. Topics include resume writing, interviewing techniques and communication skills, which will enable the student to project a professional image. Job placement service is also provided. HRD class size is limited, so pre-registration is required. Phone (910) 251-5684 or 251-5685.

JTPA/Adult Basic Literacy Education-Pender County

The JTPA/Adult Basic Literacy Education (ABLE) Program is a grant-funded literacy and workforce training program which provides literacy skills enhancement, counseling, trans-

portation, and short-term training. The Adult Basic Literacy Education Centers are situated on the CFCC Burgaw and Hampstead Satellite Centers to provide non-traditional basic literacy education through the use of computer assisted instruction (CAI). The centers utilize microcomputers as well as instructors and volunteer tutors. Phone (910) 259-4966-Burgaw or (910) 270-3069-Hampstead.

JTPA/LIFTOFF Program/ New Hanover County

The JTPA LIFTOFF Program (Labor Industry Focused Training Opportunities For the Future) is a grant-funded workforce training program which assist adults with short term training. LIFTOFF provides financial assistance with tuition, supplies, transportation, books and fees. Career counseling is an important component of the LIFTOFF Program and students must enroll in classes offered by Cape Fear Community College. Students must meet income guidelines and be residents of New Hanover County. Phone 910-251-5687.

JTPA/Youth Life Enhancement Project (YEP)/New Hanover and Pender County

The JTPA Youth Life Enhancement Project (YEP) is a JTPA grant funded workforce training program which assist youths (ages 16-21) in New Hanover and Pender Counties with the transition to short term skills training programs. YEP provides financial assistance with tuition, supplies, transportation, books and fees. Career counseling is an important component of the program and students must enroll in classes offered by Cape Fear Community College. Students must meet income guidelines and be a resident of New Hanover or Pender County. Phone (910) 251-5687.

Single Parent/Displaced Homemaker Program

The Single Parent/Displaced Homemaker Program is designed to provide assistance to single parents and/or displaced homemakers with their educational expenses at CFCC. Students can receive counseling, support, and financial assistance with child care, tuition, books/supplies, and transportation. Applicants must meet the following requirements: (1) Apply for Pell Grant (2) Be economically disadvantaged (3) Be enrolled in a Vocational or Technical Program at Cape Fear Community College. Phone (910) 251-5687.

JobLink Career Centers

The JobLink Career Center is a "one-stop" for job seekers and employers to access employment and training services designed to meet their individual employment needs. Help with developing a resume, employment letters, job interview skills, job application completion and job search techniques are available. JobLink Career Centers are located in New Hanover and Pender Counties. The New Hanover County JobLink Career Center's telephone number is (910) 251-5777. The Pender County Career JobLink telephone number is (910) 259-9105.

HRD Orientation for incoming AHS and GED students

This is a ten (10) hour orientation to familiarize new students with the operations, procedures, and expectations of the Basic Skills Department. Students receive instruction on requirements for successful completion of the program, including test taking skills, self-esteem building, critical thinking/problem solving, goal setting, and team building. Students receive information pertaining to curriculum choices, financial aid/ assistance, admissions procedures, and a tour of the school. The students will receive their CFCC picture ID, which will enable them to use the Learning Resource Center/Library. The students receive their classroom schedules and are assigned instructors.

Center for Business, Industry, & Government

The Center for Business, Industry, and Government, located at 411 N. 3rd Street, offers seminars and customized industry training for individuals and businesses in New Hanover and Pender counties. To request industry training or receive information on upcoming classes or seminars, call (910) 251-5696 or check our web page at *http://cfcc.wilmington.net/big.*

Small Business Seminars

Topics of interest to existing and prospective small business owners are offered throughout the year. Seminar topics include: starting a business, writing the business plan, financing the business, marketing, and Occupational Safety and Health Administration (OSHA) standards. To enter your name on the mailing list to receive a brochure of upcoming seminars, call (910) 251-5696.

Small Business Counseling and Referral

The Small Business Center maintains a library of small business planning brochures that are free to the prospective or existing business owner. The center also offers free one-on-one counseling and referral to area resources.

Industry Training

The Center for Business, Industry and Government provides training for industry at Cape Fear Community College as well as on-site at your business. Topics vary widely according to industry need and can be customized. Examples of industry offerings include: technical training, basic computer and software program skills, oral and written communication skills, management, supervision, quality standards, IS0 9000, customer service, and team-building. Industry training requirements can be identified via the BIG Center's home page *http://cfcc.wilmington.net/big.*

Computer Instructional Programs

Call (910) 259-4966/675-1439 for classes at CFCC-Burgaw, (910) 270-3069 for classes at CFCC Hampstead, and (910) 251-5696 for classes at CFCC Wilmington.

Computer classes are offered throughout the year. New classes begin monthly. Check the various CFCC campuses for computer courses currently available.

New and Expanding Industry

The New and Expanding Industry program is designed to:

- Assist the developing infrastructure of the area
- Develop and deliver training for the production manpower of any new, relocating or expanding industry in our service area
- To encourage the development of long range training programs within industry.

For more information, call (910) 251-5699.

Focused Industry Training (FIT)

FIT is intended for workers who need to update their skills and technical knowledge because of technological changes. Training can be held at CFCC, the firm's site or another appropriate location.

The FIT program provides for the:

- Assessment of your firm's training needs
- Development and delivery of customized training programs for skilled and semiskilled workers employed in industrial occupations.

The FIT program is offered in partnership with the Business and Industry Services Division, North Carolina Community College System.

For more information, call (910) 251-5671.

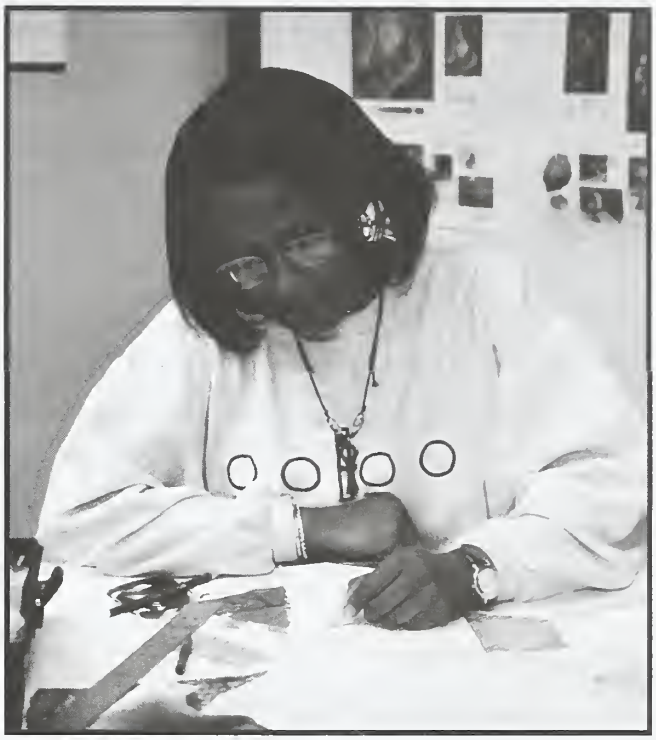
Apprenticeship Training

Offered in partnership with the NC Dept. of Labor, this program is designed to provide the specific skills associated with a trade. On-the-job training, combined with classroom instruction, develops the employees hands-on-skills, and results in the award of a certificate as a journeyman in the trade.

For information on Business and Industry Services, call (910) 251-5696 or (910) 251-5699.

Cinema Symposia

Wilmington is one of the leading film production centers in the country, and CFCC offers periodic symposia with short classes and seminars in technical skills. Some previous offerings include production & location management, electricity & light, several screen writing seminars, using the Internet, audio engineering, wardrobe, cinematography, Panavision cameras, and more. For more information, call (910) 251-5696.



Teleconferencing

Cape Fear Community College has downlink capabilities via a satellite dish to receive teleconferences which may originate from anywhere in the nation. These teleconferences represent a wide range of interests including: health care, higher education, law enforcement, small business, photography, plus many more.

These teleconferences are shown in the Teleconference Center (S-501) and the Auditorium (S-002), and broadcast over large projection screen. The Teleconference Center has a seating capacity of 50 people and the Auditorium has a seating capacity of 115 people.

Telecourses

Cape Fear Community College offers, on a semester-to-semester basis, various courses for credit that are delivered by television. These independent-study courses are aired on your local Public Broadcasting Service (PBS) station. As a telecourse student, you are required to come on campus fewer times than students in traditional classroom settings. You must, however, attend an orientation session and take course tests on campus. The TV programs serve as your lectures. You will have an instructor whom you should contact for any help with the course. You register for telecourses in the same manner as you would for any other curriculum course. Some courses are college transfer. Check with your advisor about particular telecourses. Refer to current schedule for telecourse offerings.

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